THE

WILLARD J. GRAHAM SERIES

IN ACCOUNTING

Governmental Accounting

Governmental Accounting

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Preface

Governmental and nonprofit entities account for approximately one third of the gross national product of the United States of America. The involvement, financial and otherwise, of governmental and nonprofit entities in the lives of the citizens has increased markedly over the 18 years this textbook has been in existence. Concern for the efficient and effective operation of these entities is so widespread that the emphasis in many courses in governmental accounting has changed to a development of the role of accounting in good financial management, rather than a simple exposition of the techniques of fund accounting. In this fourth edition of *Governmental Accounting* the text material and problems have been revised to facilitate the changed emphasis desired by many teachers; coverage of technical accounting material has been retained at a level adequate to meet the needs of those interested in a thorough understanding of differences between accounting for profit-seeking entities and accounting for governmental and nonprofit entities.

Also occasioning revision of *Governmental Accounting* at this time was the issuance of *Governmental Accounting, Auditing, and Financial Reporting* in the spring of 1968 by the National Committee on Governmental Accounting. The recommendations presented in the 1968 publication differ in a number of significant respects from the recommendations of the National Committee on Governmental Accounting which were in effect from 1951 to 1968 and which were presented in the first three editions of this text. Inasmuch as a number of municipalities may be expected to follow the prior recommendations for several years, both the current and prior recommendations are discussed in this edition of *Governmental Accounting*. Teachers and others concerned with the detail of the NCGA pronouncements should secure a copy of *Governmental Accounting, Auditing, and Financial Reporting* from the Municipal Finance Officers Association, 1313 East 60th Street, Chicago, Illinois 60637.

The authors wish to express their appreciation to the many persons in the employ of the federal government who assisted them in developing the chapter added to this edition of the text to present a basic treatment of the nature of federal government accounting. The authors have also added to this edition a chapter on accounting for public school systems,

in recognition of the great and growing importance of this kind of governmental unit.

The authors are greatly indebted to the Municipal Finance Officers Association of the United States and Canada for permission to draw on materials issued under its own name and that of the National Committee on Governmental Accounting. Another valuable source of help has been provided by the American Institute of Certified Public Accountants which has allowed use of questions and problems from the certified public accountant examinations given semiannually in all states, the District of Columbia, Puerto Rico, and the Virgin Islands. The Indiana State Board of Accounts generously permitted use of problems given on its examinations for appointment as field examiner, as did the Hospital Financial Management Association for problems from its fellowship examinations. Chapter 20 on accounting for hospitals draws extensively upon the excellent manual published by the American Hospital Association. Many valuable illustrations and suggestions for problems were obtained from published financial reports supplied by officials of the governmental units represented.

Last but not least among the groups to whom we are indebted are numerous colleagues in the teaching profession who have used the book in their classrooms and who have been the source of many constructive suggestions for improvement of its contents. The authors invite continuation of this helpful exchange of ideas.

Bloomington, Indiana
December, 1968

R. M. Mikesell
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Chapter 1

Accounting for Governmental and Nonprofit Entities

Almost every citizen has a valid interest in the efficient operation of governmental units, not only because as a taxpayer he supports them, but also because of the very considerable involvement of governmental units at all levels in the lives of the citizens. Within the 50 states of the United States of America there are almost 82,000 subordinate units (cities, towns, counties, townships, school districts, irrigation districts, drainage districts, fire protection districts, etc.), all referred to as municipalities. Municipalities and states are currently spending at a rate of approximately $100 billion dollars a year; the budget of the federal government for fiscal year 1969 was an additional $186 billion a year, in round numbers.

The magnitude of the citizen's involvement in nonprofit entities is more difficult to ascertain than his involvement in governmental units. Recent estimates, however, indicate that nonprofit hospitals spend around $10 billion a year; colleges and universities, $9 billion; tax-exempt foundations, $1 billion; and charitable and health organizations, $2 billion.

Thus, in total, the governmental sector and the nonprofit entities account for approximately one third of the gross national product. The term "account for" is used in a nontechnical sense; although the accounting and reporting of a number of governmental units, and many nonprofit entities, is excellent indeed, much improvement remains to be made. It is the purpose of this text to present the views of authoritative professional organizations as to desirable standards to be attained by governmental and nonprofit entities in their accounting and reporting.

Contributions of professional organizations

Among the more important professional organizations concerned with the advancement and improvement of governmental accounting, budgeting, and reporting is the Municipal Finance Officers Association of the United States and Canada. The association membership includes representatives from municipalities in both countries and from state and provincial units and agencies. The MFOA, as it is called, publishes a semimonthly *Municipal Finance News Letter;* a quarterly magazine, *Municipal Finance;* occasional *Special Bulletins* on topics of current particular interest

to financial managers; and research reports and books on technical subjects.

The National Committee on Governmental Accounting, sponsored by the Municipal Finance Officers Association, is comprised of representatives from almost all of the professional accounting and public administration organizations in the United States and Canada. The National Committee reviews the work of consultants periodically engaged by the Municipal Finance Officers Association to write manuals setting forth desirable accounting and reporting practices for governmental units. The chapters of this text which are concerned primarily with municipalities, Chapters 3 through 14, are based largely on the National Committee on Governmental Accounting's publication, *Governmental Accounting, Auditing, and Financial Reporting*, issued in 1968.

The United States Office of Education has published four volumes concerned with accounting and reporting for public school systems. The discussion of public school accounting in Chapter 18 is based on the USOE volumes and other references listed on page 549.

The Federal Government Accountants Association, whose members are individuals employed by many of the civilian and defense agencies of the executive branch and of the legislative branch of the United States government, but who are not official representatives of those agencies, publishes a quarterly magazine, *The Federal Accountant*. Articles in that magazine, and meetings of the association, assist in the development of federal accounting. The official responsibility for the establishment of principles, standards, and related requirements for federal agencies rests with the Comptroller General of the United States, the Secretary of the Treasury, and the Director of the Bureau of the Budget. Chapter 19 is based on the official pronouncements of these three officials and their respective departments.

The American Hospital Association's manuals set forth accounting and reporting practices which are widely accepted as authoritative in the hospital field, and are, therefore, explained in Chapter 20 of this text.

Other organizations, such as the American Accounting Association, the American Institute of Certified Public Accountants, and the Financial Executives Institute serve an important function in the development and improvement of accounting and reporting of governmental and nonprofit entities through committees of persons interested in the practical and theoretical aspects of financial management outside the profit-seeking sector. These organizations publish periodicals and occasionally devote portions of their meeting programs to accounting and reporting problems of governmental and nonprofit entities.

The uses and limitations of accounting

The accounting system of *any* entity must provide records and reports to meet three distinct groups of needs:

1. *Legal.* All organizations are subject to many statutory, administrative, and common-law requirements which cumulatively place considerable constraint upon the nature and content of records, and the nature, frequency, and content of reports.

2. *Stewardship.* Many groups and individuals external to the day-to-day operations of the organization have a valid need for information sufficient to evaluate the performance of the management group.

3. *Managerial.* The managers of an organization need information at a time and in a form which will enable them to perform their functions efficiently and effectively.

Traditionally, governmental accounting texts stress the peculiarities imposed upon governmental accounting by legal requirements. Inasmuch as it is assumed that the reader is familiar with accounting for profit-seeking enterprises,[1] this text, also, is focused upon the differences produced in governmental accounting by legal constraints rather than upon the many similarities with profit-seeking accounting. Nevertheless, readers should keep in mind that governmental accounting systems, and accounting systems for nonprofit-seeking entities in general, must fulfill the information needs of the management group and the information needs of those outside the management group who have a valid interest in the activities of the organization. Illustrations as to the manner in which governmental accounting can meet stewardship and managerial needs, as well as legal needs, are given in the appropriate context. Chapters 2, 19, and 21 are particularly focused upon financial management; Chapter 22 is concerned with stewardship reporting.

The principal effects of law upon governmental accounting

The pattern of governmental organization established by the Constitution of the United States—the division of functions and powers among the legislative, judicial, and executive branches—is commonly found at all levels of government within the United States. The legislative branch authorizes the sources of revenue to be collected by the executive branch, and authorizes the expenditure of those collections by the executive branch for specified purposes. The separation of the financial management function between the legislative and executive branches has led to two developments which are characteristic of governmental accounting and which differ markedly from developments in accounting for profit-seeking entities: (1) the grouping of accounts by *funds*, and (2) the formal recording of budgetary accounts as well as proprietary accounts.

Funds in governmental accounting

The word *fund* has a special, technical, meaning in governmental accounting: *A fund is defined as an independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other*

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[1] Readers who do not have a background in basic accounting should refer to any textbook in Introductory Accounting for an explanation of fundamentals.

resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.[2]

The dual meaning of "fund" should be noted. In one usage, it means "resources." In another usage, it is an accounting entity. As a control factor, the entity aspect of a fund is of paramount importance. This is true because the legal authority creating the fund does so to accomplish a special purpose; this purpose imposes vital limitations on what can be done with fund resources and determines requirements that must be met by fund accounting procedures. The importance of the fund in governmental finance explains the frequent use of the expression "fund accounting" to characterize accounting for government.

The National Committee on Governmental Accounting suggests eight different types of funds, each of which is associated with some major service or group of services performed by governmental units or departments. These eight types are as follows:

1. *General fund.* In this category are funds established to account for resources devoted to financing the general services which the governmental unit performs for its citizens. These include general administration, protection of life and property, sanitation, and similar broad services. The general fund is sometimes described as the one used to account for all financial transactions not properly accounted for in another fund. Some activities, such as governmentally supported libraries, are of sufficient importance and magnitude to have a special fund; when this is not true they become a function and responsibility of the general fund. Accounting and reporting for general funds is discussed in Chapters 3, 4, and 5 of this text.

2. *Special revenue, or special, funds.* Funds of this class are created and operated to account for revenue designated by law for a particular purpose. For the specific purpose or function to which it is devoted, a special revenue fund is much in the nature of a general fund. Some of the governmental services for which special funds are frequently established are education, libraries, highways, welfare, etc. Accounting and reporting for special funds follows the principles and practices set forth in Chapters 3, 4, and 5.

3. *Capital projects funds.* The receipt and disbursement of all moneys used for the acquisition of capital facilities other than those financed by special assessment and enterprise funds is accounted for by capital projects funds. Capital projects funds are discussed in Chapter 6.

4. *Debt service funds.* A debt service fund is created to account for the resources devoted to the payment of interest and principal on long-term general obligation debt other than that payable from special assessments and that serviced by governmental enterprises. Chapter 7 is devoted to debt service funds.

[2] Appendix 1 of this text is a glossary of municipal accounting terminology. Definitions of terms of particular importance are given in the text at the time the term is first used. The definition of fund quoted here is taken from *Governmental Accounting, Auditing, and Financial Reporting*, pp. 6–7.

5. *Trust and agency funds.* Trust funds and agency funds are used to account for transactions related to assets held by a governmental unit as a trustee or agent. In most cases the governmental unit does not have absolute title to the assets held; and in the remainder, they are owned with specific restrictions upon their use. Trust and agency funds are discussed in Chapter 8.

6. *Intragovernmental service funds.* Intragovernmental service funds are established by governmental units as a means of providing services to other funds or departments of the same unit in a manner that is more efficient or economical, or both, than is possible in any other way. Funds of this nature are discussed in Chapter 9.

7. *Special assessment funds.* Special assessment funds are designed to account for the construction, or purchase through contract, of public improvements—streets, sidewalks, and sewer systems, for example—which are financed by special levies against property owners adjudged to receive benefits from the improvements materially in excess of benefits received by the general body of taxpayers, and for the maintenance and upkeep of such assets. Chapter 10 presents the fundamentals of special assessment fund accounting.

8. *Enterprise funds.* Intragovernmental service funds are established to provide services within a given governmental unit, but enterprise funds are operated to provide electric, water, gas, or other services to the general public. Except for ownership, they bear a close resemblance to privately owned utility or other service enterprises. Chapters 11 and 12 present accounting and reporting standards for enterprise funds.

In addition to the eight generally recognized types of funds, governmental units may employ self-balancing groups of accounts which for accounting purposes are similar to funds, but which lack other essential qualifications of funds. These groups are commonly called the "general fixed assets group" and the "general long-term debt group." The term "fund" cannot properly be substituted for the word "group" in the two expressions because the accounting entities do not represent resources to be used for specified purposes of the government. General fixed assets are those not used exclusively by any one fund, and general long-term debt is that long-term debt which is not presently a liability of any given fund. Chapter 13 is concerned with general fixed asset accounting; accounting for general long-term debt is discussed in Chapter 14. Interrelationships among the various funds and account groups are explained in Chapter 16.

Although funds are employed extensively and effectively to promote the use of governmental resources for their intended purposes, the practice can be carried to extremes. In the opinion of many, accounting and reporting are facilitated through use of the minimum number of funds consistent with legal and operating requirements.

Prior recommendations of the NCGA

The eight funds and two account groups described in the preceding section are those recommended by the National Committee on Governmental Accounting in *Governmental Accounting, Auditing, and Financial*

Reporting, published in the spring of 1968. The 1968 publication differs to some extent in terminology and other respects from the recommendations of the NCGA which stood from 1951 until 1968. Inasmuch as accounting reports and records of many municipalities will continue to reflect the earlier recommendations for an appreciable time, the discussion in this text of each fund and account group includes not only current NCGA recommendations, but also mention of prior recommendations likely to be encountered in the transitional period.

Budgetary accounts

Governmental budgeting as a device for the improvement of financial management, as well as a means of facilitating control over actions of the executive branch by the legislative branch, is discussed in some detail in the following chapter. It is the latter aspect, however, which has given rise to one of the distinguishing features of governmental accounting: the integration of budgetary accounts with the proprietary accounts. Proprietary accounts, in the governmental sense, include accounts similar to the real and the nominal groups found in accounting for profit-seeking entities—that is, asset, liability, net worth, revenue, and expense. Budgetary accounts, limited in number, record the appropriations or authorizations of expenditures ordained by the legislative body, and the estimate of revenues to be realized from various sources. Proprietary and budgetary accounts are ordinarily kept in the same ledger, except for enterprises, which either segregate the budgetary accounts or dispense with them entirely. The uses of budgetary accounts are illustrated in the following chapters relating to accounting for the various municipal funds.

Additional comparisons with accounting for profit-seeking entities

In accounting for businesses, determination of the amount of net income, and the detailed causes thereof, is of foremost importance. In governmental accounting, only three types of funds—trust, intragovernmental service, and enterprise—make use of so-called "profit and loss" accounting procedures; funds of other types record revenues and expenditures principally for control and as a basis for demonstrating compliance with their budgets, without much reference to net gain or net loss. Even for those funds which do attempt to determine net income, only certain trust funds have major interest in the largest possible amount of gain. Intragovernmental service and enterprise funds are operated primarily for service; they make use of revenue and expense accounts to promote efficiency of operation and to guard against impairment of capital but, in theory at least, should only break even in their operations over a period of years. For these reasons, operating statements of governmental funds should not be described as income statements but rather as statements of revenue and expenditures, or some similar name.

In general, use of the accrual basis of accounting is recommended for

governmental units as well as for profit-seeking businesses. Accrual accounting means (1) that revenues should be recorded in the period in which the service is given, although payment is received in a prior or subsequent period, and (2) that expenditures should be recorded in the period in which the benefit is received, although payment is made in a prior or subsequent period. In business for profit, the accrual basis is employed to obtain a matching of costs against the revenue flowing from those costs, thereby producing a more useful statement of gain or loss. In government, use of the accrual basis enables a better comparison between actual expenditures and revenues and the amounts authorized in the budget approved by the legislative body.

Use of the accrual basis for governmental expenditures is more important than for revenues. This is true because the practice contributes to better control of expenditures, thus providing taxpayers a measure of protection against possible excesses on the part of public officials. The cash basis of accounting for governmental financial operations records revenue in the period in which payment is received and expenditures in the period in which payment is made. Any procedure which is partly accrual and partly cash may be described as either a modified accrual or a modified cash basis. In numbers of applications, the modified basis greatly exceeds the full accrual basis. Because some governmental revenue cannot be collected, although legally due, many governmental units account for revenue on the cash basis and expenditures on the accrual basis.

The pattern and quality of governmental accounting are strongly affected, probably adversely, by the methods of selecting persons responsible for it. In business, ability, training, experience, and other constructive qualifications are generally the determining factors in selection of personnel. In governmental practice, on the other hand, offices involving important accounting functions often have only the most superficial qualification requirements, such as citizenship, residence, and age. Most of the voters, having little or no concept of the technical nature of the duties to be performed, are inclined to base their choice of candidates on considerations of group affiliation (political, religious, ethnic, fraternal, etc.), personality, age, sex, and other characteristics no more closely related to real competency for discharging the duties of the office. In too many instances, governmental accounting positions filled on an appointive basis fall to persons selected for their alleged executive ability, which is often little more than adroitness in keeping conflicting interests under control with little reference to principles involved, and not for their qualifications for administering efficiently the real work of the office or department. Relatively low pay and probable brevity of tenure are other factors which militate against procurement of competent accounting personnel, in many state and local governments. Definite progress is being made, however, in the employment of accounting as a means for promoting economy and

efficiency in government. Particularly in the field of personnel selection, substantial improvements have come about through growing recognition of the impact of government finance upon the economic status of the individual.

A word to the wise

Even when developed to the ultimate stage of perfection, governmental accounting cannot become a guaranty of good government. At best, it can never be more than a valuable tool for promotion of sound financial management. It does not offer a panacea for all the ills that beset representative government; nor will it fully overcome the influence of disinterested, uninformed citizens. It cannot be substituted for honesty and moral integrity on the part of public officials; it can help in resisting but cannot eliminate the demands of selfish interests, whether in the form of individual citizens, corporations, or the pressure groups which always abound to influence government at all levels.

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QUESTIONS

1. "Governmental accounting need be concerned only with the satisfaction of legal requirements." Comment.
2. "Each legal jurisdiction establishes requirements for accounting which are legally binding; therefore there are no generally applicable principles and standards for governmental accounting." Comment.
3. "The sole reason accounting majors should study governmental accounting is so they can pass the CPA examination. The subject is of no importance for anyone else." Do you agree? Why or why not?
4. Why is accounting for nonprofit entities discussed along with governmental units, rather than with accounting for profit-seeking enterprises? Name some categories of nonprofit entities of wide importance in the United States economy.
5. Even though a governmental unit may have a good system of accounting and reporting, evaluating the performance of its administrators is said to be more difficult than for a commercial enterprise of comparable size. Why might this be true?
6. Control of governmental expenditures is commonly regarded as more important than control of revenues. Can you think of any reason for this emphasis?
7. Many governmental units account for revenues on the cash basis and for expenditures on the accrual basis. Can you think of any logic or argument for this combination of practices?
8. An auditor found among the records of a municipality those of a fund referred to as the "corporate purposes fund." Some of the departments accounted for by this fund were the Mayor's Office, Law Department, Police Department, Fire Department, and Street Department. In which of the eight classes of funds would you place the "corporate purposes fund"?

CONTINUOUS PROBLEM

1-L. NOTE: Chapters 2 through 16 of the text deal with specific knowledge needed to understand the accounting for the funds recommended for use by municipalities, and with specific aspects of financial management. In order to help the student keep the entire municipal accounting and financial management area in perspective, a series of related problems is presented. Each problem in the series, designated 1-L, 2-L, 3-L, etc. concerns representative activities of a small city, called the city of Bingham.

1. The city of Bingham has the following funds in addition to its General Fund; you are required to classify each in accordance with the types discussed on pages 4 and 5 of the text:

   College Construction Fund. This fund was created to account for the proceeds of the sale of serial bonds issued for the construction and equipping of buildings for a new junior college.

College Bond Debt Service Fund. Nonactuarially determined contributions and earnings thereon, for the purpose of the payment of interest on and redemption of serial bonds issued by the College Construction Fund, are accounted for by this fund.

Employees' Retirement Fund. This fund was established to account for actuarially determined retirement contributions and earnings thereon, and for the payment of retirement annuities.

Stores and Services Fund. This fund was established to account for centralized purchasing and management of inventories used by a number of departments of the municipal government.

Water Utility Fund. The water utility serving the city of Bingham was originally constructed and operated by a private corporation. It was subsequently sold to the city, but it is still operated on a self-supporting basis under the regulations of the State Public Service Commission.

Irwinville Special Assessment Fund. Property owners in an unincorporated area, called Irwinville, agreed to bear the cost of the extension of water mains into their area by the city of Bingham Water Utility.

2. In addition to the funds described above, what groups of accounts should be established for the city of Bingham? Why are these called "groups of accounts" rather than "funds"?

3. For each of its funds and account groups, the city of Bingham maintains separate, manually kept books of original entry and ledgers.

   You are required to:

   a) Open a general journal for the General Fund. Allow 7 pages of 8½ by 11-inch looseleaf journal paper, or its equivalent. (Do not open general journals for other funds until instructed to do so in subsequent "L" problems.) The form you use must allow for entry of subsidiary ledger accounts as well as general ledger accounts, and for entry of adequate explanations for each journal entry. You will use the journal as your only posting medium; it should be complete.

   b) Open a *general ledger* for the General Fund. Allow 5 lines, unless otherwise indicated below, for each of the following accounts:

Cash	20 lines
Petty Cash	
Taxes Receivable—Current	8 lines
Estimated Uncollectible Current Taxes	
Taxes Receivable—Delinquent	8 lines
Estimated Uncollectible Delinquent Taxes	
Interest and Penalties Receivable on Taxes	
Estimated Uncollectible Interest and Penalties	
Due from Other Funds	8 lines
Advance to Stores and Services Fund	
Estimated Revenues	
Revenues	8 lines
Vouchers Payable	12 lines
Tax Anticipation Notes Payable	
Due to Federal Government	12 lines
Due to Other Funds	8 lines
Appropriations	
Expenditures	20 lines

Expenditures—Prior Year
Encumbrances.. 8 lines
Reserve for Encumbrances.............................. 8 lines
Reserve for Encumbrances—Prior Year
Reserve for Advance to Stores and Services Fund
Fund Balance..12 lines

NOTE: If desired, a numerical classification system may be devised for the general ledger accounts to facilitate journalizing and posting transactions. The classification system should provide for subsidiary ledger accounts supporting Estimated Revenues, Revenues, Appropriations, Expenditures, and Encumbrances. *Do not open subsidiary ledgers until instructed to do so in subsequent "L" problems.*

c) The balance sheet of the general fund of the city of Bingham as of the first day of the year with which the "L" problems are concerned is shown below. Enter the balance sheet amounts directly in the appropriate general fund general ledger accounts.

CITY OF BINGHAM

General Fund Balance Sheet
as of July 1, 19—

Assets			*Liabilities, Reserves, and Fund Balance*	
Cash		$ 45,000	Vouchers payable	$187,000
Taxes receivable—delinquent	$244,000		Due to other funds	22,000
Less estimated uncollectible taxes	24,400	219,600	Total liabilities	$209,000
Interest and penalties receivable on taxes	13,376		Reserve for encumbrances—prior year	14,000
Less estimated uncollectible interest and penalties	662	12,714	Fund balance	54,314
Total Assets		$277,314	Total Liabilities, Reserves, and Fund Balance	$277,314

Chapter 2

Budgets for Operations and Capital Improvements

Operating budgets

The word "budget" has unpleasant connotations to most individuals. If the word were not fixed in technical language by statute and tradition the term "operating plan" could be substituted, for in governmental bodies as well as private businesses a budget is now conceived of as a device to aid management to operate an organization more effectively. An older view of the nature of a budget still is implicit in statutes, and probably for that reason, the National Committee on Governmental Accounting still defines a budget as, "A plan of financial operation embodying an estimate of proposed expenditures for a given period of time and the proposed means of financing them."[1]

The evolution of the concept of a budget from "an estimate of proposed expenditures and the proposed means of financing them" to an "operating plan" was a natural accompaniment to the development of the concept of professional management. In public administration, as in business administration, the concept of professionalism demanded that administrators, or managers, attempt to put the scarce resources of qualified personnel and money to the best possible uses. The legal requirement that administrators of governmental units and agencies submit appropriation requests to the legislative bodies in budget format provided a basis for adapting required budgetary estimates of proposed expenditures to broader management use. The legislative appropriation process has traditionally required administrators to justify budget requests. A logical justification of proposed expenditures is to relate the proposed expenditures of each governmental subdivision to the programs and activities to be accomplished by that subdivision during the budget period. The type of budgeting in which input of resources is related to output of services is sometimes known as *performance budgeting.*

Program budgeting is another term which is sometimes used synonymously with performance budgeting, although it has been suggested by the

[1] National Committee on Governmental Accounting, *Governmental Accounting, Auditing, and Financial Reporting,* p. 5.

Municipal Finance Officers Association in its *Operating Budget Manual*[2] that the term program budgeting be applied to a budget format which discloses the full cost of a function without regard to the number of organizational units that might be involved in performing the various aspects of the function, whereas a performance budget format would relate the input and output of each unit individually.

The use of performance budgeting in governmental units received significant impetus from the work of the first Hoover Commission for the federal government. The report of this commission, presented to the Congress in 1949, led to the adoption of the performance budgeting concept in the federal government. Performance budgets were introduced in the federal government as "cost-based budgets" or "cost budgets." The use of these designations suggests that a governmental unit desiring to use performance budgeting must have an accrual accounting system, rather than a cash accounting system, in order to ascertain routinely the costs of programs and activities. The recommendations of the second Hoover Commission led to the statutory requirement of both accrual accounting and cost-based budgeting for agencies of the executive branch of the federal government. Federal statutes also require the synchronization of budgetary and accounting classifications, and the coordination of these with the organization structure of the agencies. Realization that planning and programming functions of federal agencies were not performed by the same organizational segments that performed the budgeting and accounting functions, and that, consequently, plans and programs were often not properly related to appropriation requests, caused the introduction of an integrated planning-programming-budgeting system, called PPBS, throughout the executive branch by Presidential memorandum.

Needs to be served by the budget

From the viewpoint of people concerned with the practical problem of developing and operating a budgeting system in a specific governmental body the name given to the system is unimportant. An author who has had many years experience as budget supervisor of a large and progressive municipality stated that the realistic approach to determining the format of a budget was to consider the needs of the taxpaying public, the municipal executives, and the legislators. In his view the taxpayers need:

1. A format that will show the many functions for which the city intends to spend public money. Not just the supplies, services, equipment, and number of people we hire and for which we spend money directly, but the functions that these purchases accomplish.

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[2] Lennox L. Moak and Kathryn W. Killian, *A Manual of Techniques for the Preparation, Consideration, Adoption, and Administration of Operating Budgets* (Chicago: Municipal Finance Officers Association, 1963). This manual is commonly referred to as the *MFOA Operating Budget Manual.*

2. One that will show how much the taxpaying public is supposed to receive of each of these functions.

3. A format that will discourage excessive year-end expenditures by taking the advantages out of the stockpiling of supplies and materials.

4. One that will provide a means for the public to determine just how much of each planned function was actually accomplished during the budget period.[3]

The same author recommends the following considerations for the development of a budget format which will aid municipal executives and department heads to manage the operations of the municipality efficiently:

1. A format that will assist them in considering the PLANNING aspect of management from the service accomplishment standpoint rather than from the purchase and expenditure standpoint.

2. One that will aid them in the ORGANIZATION facet of management by assisting them in establishing relationships between functions, supplies, material and personnel grouped together for a common purpose.

3. A format that will aid in the COORDINATION aspect of management by establishing a plan of total operations upon which a sequence of accomplishments may be based.

4. One that will aid in the DIRECTING phase of management; that will show subordinates what is expected to be done.

5. A format that will aid the department head in the CONTROLLING phase of management by giving him a means of determining if his plan is being fully accomplished or where operational difficulties may lie.

6. One that will provide his subordinate supervisory personnel with additional incentive to do the job more economically by making the results of their efforts more readily apparent.

7. A format that will provide a means whereby the public and the policy making officials will be able to factually determine those department heads that are making the most conscientious effort to accomplish their responsibilities with the most economical expenditure of public funds.[4]

In comparison with the needs of the taxpayers and the needs of the municipal management team listed above, the same author feels that the legislators need a budget document which will:

1. Reflect more accurately the increased level of services made possible through improved methods.

2. Assist the legislator in determining which of the undertakings of the departments are essential to the government's overall program.

3. Assist the legislator in determining what total services the city gives and whether or not that service has expanded or contracted.

4. Assist the legislator in insuring that expenditures are made for the service for which they were appropriated or that variances in the program

[3] Edwin C. Whitney, "The Operating Budget," *Municipal Finance*, Vol. XXXVII, No. 1 (August, 1964), p. 18.

[4] *Ibid.*, p. 19.

were approved by those responsible to the public for the appropriation of public moneys.[5]

A careful reading of the 15 points itemized above discloses some conflicts, and raises some doubts that a single budget document can serve all these needs satisfactorily. One solution adopted by the Bureau of the Budget of the federal government is the use for general distribution of a relatively brief document containing narratives and figures that most members of the public would normally wish to know. Additional data for the appropriations committees of the Congress, and for others concerned wtih budget details, are issued as appendices to the summary document. Individual agencies, and their subdivisions, have even more detailed worksheets from which the appendices were prepared.

Performance budget example

Illustration 2–1 presents two pages from the annual expenditures budget of a city of approximately 18,000 population in central California. The expenditures budget is the city administration's request to the City Council (the legislative body) for appropriations; the expenditures budget is accompanied by a revenue budget and plan for financing the proposed expenditures (see Illustration 2–2). The particular portion of the budget shown in Illustration 2–1 supports a single entry in the summary expenditures budget: the request by the city administration for an appropriation of $32,321 for the operation of the City Clerk-Treasurer's office for the forthcoming fiscal year (see Illustration 2–3).

The first portion of the first page of Illustration 2–1 shows that the requested appropriation is for three general classes of expenditures: Salaries, Wages, and Benefits; Materials, Supplies, and Services; and Capital Outlay. The detail supporting the amounts requested for each of the three classes of expenditures is shown on the second page of the illustration. The second portion of the first page of the illustration presents in both narrative and tabular form information relating to the work program, or "output" of the City Clerk-Treasurer's office so that City Council members and other interested parties may have some means of judging whether the requested dollar input is appropriate. In order to aid in this judgment comparative figures are shown on the budget form for both the dollar amounts and the work load. It should be noted that the figures for the year in which the budget is prepared are labeled "estimated"; in fact they represent actual data for 10 months of the current fiscal year plus estimates for the 2 remaining months of the year. A similar mixture of data is necessary in any budgeting system because the budget must be submitted to the legislative body sufficiently before the beginning of the budget year to allow time for study, possible changes, and approval of the budget before the start of the budget year.

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[5] *Ibid.*, p. 19.

Illustration 2–1

PERFORMANCE BUDGET

SERVICE PROGRAM SUMMARY

Function	Department	Fund	Account Number
General Government	City Clerk-Treasurer	General	1100

Program: City Clerk-Treasurer

CLASSIFICATION	ACTUAL EXPENDITURES 1967–68	ESTIMATED EXPENDITURES 1968–69	DEPARTMENT REQUEST 1969–70	FINAL ALLOWANCE 1969–70
SALARIES, WAGES, AND BENEFITS	$16,965	$19,059	$21,158	$22,389
MATERIALS, SUPPLIES, AND SERVICES	5,205	7,752	10,543	8,787
CAPITAL OUTLAY	206	1,099	1,683	1,145
SUBTOTAL				
LESS: EXPENDITURES CHARGEABLE TO OTHER SERVICE PROGRAMS				
TOTAL PROGRAM COST	$22,376	$27,910	$33,384	$32,321
NUMBER OF FULL-TIME POSITIONS	2	3	3	3
PROGRAM EFFICIENCY FACTOR				808

PROGRAM INFORMATION

The City Clerk-Treasurer is the custodian of official City records and all City funds. This dual function includes the recording of Council meeting minutes and actions, preparation of the agenda for Council meetings, legal advertising releases, operation of the central mailing service, and maintenance of the central files for legal documents and correspondence. The City Clerk is also responsible for the conduct of all City elections.

The City Clerk-Treasurer issues all business licenses and dog licenses, handles billing of special assessments, maintains the City's banking and investment records and is the paying agent for some City Bonds. All duplicating is handled by this department.

Work Program Statistics

	Estimated 1968–69	Estimated 1969–70
Ordinances Adopted	24	26
Resolutions Adopted	125	127
Recordings in County Office	60	100
Council Meeting Agenda Prepared	50	52
Pages of Council Meeting Minutes	80	90
Special Assessment Districts:		
Number of Districts	25	28
Number of Bond Coupons Processed	1,662	1,647
Business Licenses Issued	995	1,000
Dog Licenses Issued	2,100	2,115
Items Filed	11,680	11,800
Pieces of Metered Mail Processed	76,015	83,515
Number of Duplicator Copies	8,655	8,900

Illustration 2–1 (*continued*)

PERFORMANCE BUDGET
Detail

DETAIL

FUNCTION	DEPARTMENT	FUND	ACCOUNT NUMBER
General Government	City Clerk-Treasurer	General	1100

PROGRAM: City Clerk-Treasurer

ITEM	POSITIONS: CURRENT AUTH.	POSITIONS: REQUEST	POSITIONS: ALLOWED	ACTUAL EXPENDITURES 1967–68	ESTIMATED EXPENDITURES 1968–69	FINAL ALLOWANCE 1969–70
Salaries, Wages, and Benefits						
Full-Time Positions:				*Salary Range*		
City Clerk-Treasurer	1	1	1	$(556–676)	$ 7,728	$ 8,112
Senior File Clerk	1	1	1	(358–436)	4,920	4,607
Intermediate File Clerk	1	1	1	(310–376)	3,655	3,885
Total Full-Time	3	3	3	$10,731	$16,303	$16,604
Part-Time Positions:						
Account Clerk						2,600
Trainee						1,400
Total Part-Time				$ 6,234	$ 2,756	$ 4,000
Retirement Contributions						1,056
Social Security						482
Employee Group Insurance						219
Workmens' Compensation						28
Total Salaries, Wages, and Benefits				$16,965	$19,059	$22,389
Materials, Supplies, and Services						
205 Professional Services				$ 375	$ 737	$ 600
215 Telephone and Telegraph				241	347	350
220 Office Supplies				1,330	1,484	1,500
225 Printing and Binding				727	820	800
230 Advertising, Publication and Postage				1,937	2,946	3,200
235 Travel and Meetings Expense				...	50	100
240 Subscriptions and Memberships				15	20	30
245 Car Allowance				80	191	250
255 Office Equipment Operation and Maintenance				1,060	1,157	1,200
285 Insurance and Surety Bonds				...	...	407
290 Other (Central File Analyst)				(560)	...	350
Total Materials, Supplies, and Services				$ 5,205	$ 7,752	$ 8,787
Capital Outlay						
1. 1-Typewriter, Electric						$ 420
2. 1-Chaindex File Cabinet						275
3. 1-Desk, Chair, and Credenza Unit						450
Total Capital Outlay						$ 1,145

The budget calendar

The date by which the budget must be submitted by the municipal administration to the legislative body is set by law in many states. Customarily, state statutes also establish the fiscal year for municipalities within the state, require publication of the proposed budget a certain number of times by certain dates, and set a date for adoption of the budget by the legislative body. A procedure for changing elements of the budget after it has been legally adopted is also usually provided by the statute.

In order to provide an orderly procedure within the administrative offices for preparation and review of the budget before submission to the legislative body a more complete timetable, or calendar, needs to be established than that set by statute. As a guide, a manual published by the Municipal Finance Officers Association suggests the following time allotments for medium-sized and large cities for major phases in the budget process:

For preparation of departmental estimates	30 days
For central budget agency and executive review and action	45 days
For preparation of budget document	20 days
For legislative and public consideration	60 days
For executive approval, veto, and preparation for budget execution	30 days
Total elapsed time from the distribution of budget request forms to the beginning of the fiscal year	185 days[6]

For smaller municipalities, the manual suggests, the time margins may be trimmed by 20 to 25 days; but reported experience indicates that any total allocation of less than 160 days is likely to prove unsatisfactory.

Bases for budgeting

The *Operating Budget Manual* of the Municipal Finance Officers Association emphasizes that if a budget is to be a realistic plan of operations it must be based on the following factors:

1. The body of law governing budget format, timing, and procedure.
2. The forces of public life which utilize the budget as an instrument of public policy.
3. The administrative establishment within the executive branch which initiates, formulates, seeks approval of, and supervises the execution of the budget.
4. The legislative element which determines the rules within which administrative aspirations and performance are to be carried out.
5. Relationships which exist between two or more local governments which exercise overlapping, concurrent, or related interest in resources and activities; also, inducements and restraints imposed by higher levels of government to affect the scope and level of performance of functions of local governments.
6. The productive capacity of the community as modified by the extent to

[6] Moak and Killian, *op. cit.*, p. 67.

which this capacity may reasonably be expected to be diverted to the public sector.
7. The broad social fabric of the community which is both a basis upon which the government rests and which the government serves and from time to time modifies.
8. The historic record of inertial and dynamic forces which have brought the community and its public programs and problems to their contemporary status.
9. The forward reach to prepare operating plans for the foreseeable future and to plan the levels of revenues and expenditures needed to make the operating plans a reality.

The factors itemized above are basic. They illustrate that the budget of a governmental unit is the product of economic, political, legal, and social factors external to the unit itself, as well as internal managerial and political factors of the unit and the economic resources of the population and area within the unit. Comparable considerations exist for business enterprises. A profit-seeking business will succeed in the long run only if it serves the needs of its customers and of society in general: the financial managers of a business must budget within this framework. In business budgeting revenues and expenses of any year are interrelated; expenses are incurred in the effort to produce revenue, and the production of revenue enables the further incurring of expenses and the further production of revenue. Revenue and expense are interdependent variables in business budgeting.

Business budgeting concepts are appropriate for governmental activities run on a business basis. A similar interrelationship may be said to exist at the federal government level in the cases of certain General Fund expenditures which are made in order to stimulate segments of the economy; the costs of increasing economic activity tend to be recouped by increased tax revenue. At the municipal level, however, except for utilities or other business enterprises, revenue and expenditure are not interdependent variables. Expenditures are made in order to render a service to the citizens, and not in order to generate revenue. Similarly, although municipal revenues may vary from month to month, the variation of revenue has little direct effect upon the incurring of expenditures.

Budgeting municipal revenues

Although municipal revenues and expenditures are not interdependent variables as business revenues and expenses are, the availability of revenue is a necessary prerequisite to the incurring of expenditures. In some jurisdictions municipalities may operate at a deficit temporarily, but it is generally conceded that they may not do so indefinitely. Thus, wise financial management calls for the preparation of revenue budgets, at least in rough form, prior to the preparation of detailed operating plans and expenditure budgets.

"Revenue" is a term which has a precise meaning in governmental accounting. The National Committee on Governmental Accounting states that revenue arises from additions to assets which: (1) *do not increase any liability;* (2) *do not represent the recovery of an expenditure;* (3) *do not represent the cancellation of certain liabilities without a corresponding increase in other liabilities or a decrease in assets;* and (4) *do not represent contributions of fund capital in Enterprise and Intragovernmental Service funds.* In short, in business accounting terminology, revenue arises from transactions which increase net assets. Sources of revenue available to a given municipality are generally closely controlled by state law; state laws also establish procedures for the utilization of available sources, and may impose ceilings on the amount of revenue that a municipality may collect from certain sources. Sources generally available for financing the routine operations of a municipal government include: real property taxes, personal property taxes, license fees, fines, charges for services, grants or allocations from other governmental units, and revenue from the use of municipal money or property. Chapter 4 of this text describes revenue sources and discusses revenue accounting in some detail. Chapter 15 is concerned with "Special Features of Property Tax Accounting." The present discussion is, therefore, limited to the broad aspects of municipal revenue budgeting.

Within the framework set by legal requirements, and subject to the approval of the legislative body (which, in turn, reacts to the electorate), the determination of revenue policy is a prerogative of the administration. Major considerations underlying the policy formulation are set forth in the preceding section of this chapter. After policies are established the technical preparation of the revenue budget is ordinarily delegated to the municipal finance officer. In order to facilitate budget preparation, experienced finance officers generally keep for each revenue source a file containing (1) a copy of legislation authorizing the source, and any subsequent legislation pertaining to the source, (2) historical experience of the municipality relative to collections from the source, including collections as a percentage of billings, where applicable, (3) relevant administrative policies, and (4) specific factors which affect the yield from the source, including, for each factor, the historical relationship of the factor to revenue procedures to be used in projecting the trend of factors affecting yield, and factors affecting collections. Graphic presentations of these factors are also frequently included in the file.[7]

Illustration 2–2 presents a summary revenue budget for a municipality of approximately 18,000 population. The sources of revenue shown in the illustration are typical of many municipalities. Presentation of data comparing estimates for the budget year with the "revised estimates" for the

[7] Moak and Killian, *op. cit.*, reports the results of a survey of 17 cities in the United States and Canada as to practices in revenue program formulation; see Chapter 17 especially.

Illustration 2–2

REVENUE BUDGET

Source	*Actual Revenues 1967–68*	*Revised Estimates 1968–69*	*Estimated Revenues 1969–70*
Taxes:			
General property taxes	$ 233,667	$ 263,860	$ 276,000
Sales & use taxes	245,806	300,000	344,000
Franchises	4,723	5,249	5,500
Hotel-motel room tax	...	...	...
Total taxes	$ 484,196	$ 569,109	$ 627,500
Licenses and permits:			
Business licenses	$ 31,536	$ 30,000	$ 31,000
Animal licenses	2,129	1,800	2,000
Bicycle licenses	30	40	50
Building permits	13,888	10,000	10,000
Plumbing permits	4,225	2,500	2,500
Electric permits	1,636	1,500	1,500
Gas permits	830	650	650
Other licenses and permits	680	240	250
Total licenses and permits	$ 54,954	$ 46,730	$ 47,950
Intergovernmental revenue:			
State alcoholic beverage licenses	$ 13,078	$ 12,000	$ 13,000
State motor vehicle in-lieu tax	80,905	85,000	95,000
State gasoline tax:			
Regular (maint. and const.) 2107	46,692	60,323	63,150
Matching (const.) 186.1	...	22,200	43,700
Trailer coach fees	520	677	700
State grants—civil defense	...	3,230	...
Total intergovernmental revenue	$ 141,195	$ 183,430	$ 215,550
Charges for services:			
Sewer connection fees	$ 57,060	$ 40,000	$ 40,000
Subdivision capital outlay fees	11,280	7,500	6,500
Engineering fees	7,996	2,253	2,500
Planning fees	150	755	950
Library revenues	2,776	6,200	6,400
Parks and recreation revenues	9,553	15,300	25,300
Animal shelter fees	37	100	150
Special police services	102	50	50
Police report fees (thermo-fax)	447	450	450
Golf course revenues	...	50,000	126,625
City clerk revenues	111	2,090	100
Streets and sanitation revenues:			
Street, sidewalk and curb repairs	464	686	500
Refuse collection charges	150	150	150
Sale of refuse	181	280	200
Lot cleaning charges	...	...	1,500
Other services charges	10,360	70	50
Total service charges	$ 100,667	$ 125,884	$ 211,425
Fines and forfeits:			
Vehicle code fines	$ 24,134	$ 26,000	$ 28,000
Parking violations	4,006	3,500	4,000
Other court fines	2,556	2,500	2,500
Total fines and forfeits	$ 30,696	$ 32,000	$ 34,500

(Continued on following page)

Illustration 2–2 (*continued*)

REVENUE BUDGET

Source	*Actual Revenues 1967–68*	*Revised Estimates 1968–69*	*Estimated Revenues 1969–70*
Miscellaneous revenues:			
Revenue from public utilities:			
Electric service:			
Power sales	$ 755,910	$ 815,000	$ 850,000
Other electric revenues	16,008	7,500	10,000
Total electric service	$ 771,918	$ 822,500	$ 860,000
Water service:			
Water sales	$ 232,829	$ 256,000	$ 275,000
Other water revenues	120	200	...
Total water service	$ 232,949	$ 256,200	$ 275,000
Refuse collection service:			
Refuse service charges	$ 98,695	$ 107,000	$ 112,000
Sewage disposal service:			
Sewer service charges	99,926	108,500	115,000
Total public utilities	$1,203,488	$1,294,200	$1,362,000
Other miscellaneous revenues:			
Roseville District Hospital	$ 25,763	$ 49,005	$ 58,335
Sale of city property	38	...	...
Contributions	184	...	...
Interest on investments	31,550	33,000	23,000
Equipment rentals	...	50	100
Total other miscellaneous revenues	$ 57,535	$ 82,055	$ 81,435
Total Current Revenues	$2,072,731	$2,333,408	$2,580,360
Prior Years Revenues:			
Beginning balance, July 1, 1969			509,965
Less: Restricted ending balance, June 30, 1970			−58,111
Total Resources Available for Appropriation			$3,032,214

current year, and the actual revenues of the immediately prior year, is also typical. If estimates differ markedly from current and recent experience, explanations are sometimes made a part of the budget presentation by footnote, sometimes by supplementary schedules, and other times are omitted from the formal presentation with the thought that the explanations may be given orally, if called for.

Budgeting municipal expenditures

Expenditure budgets are an administration's requests for appropriations. In practice, the preparation of municipal expenditure budgets for any one year is dependent upon the administration's budget of revenues in that the revenue budget is the plan of financing the proposed expenditures. If the performance budget concept is followed, expenditure budgets are prepared for each existing and continuing work program or activity of each governmental subdivision; for each program authorized or required by action of past legislative bodies, but which has not yet been

made operative; and for each new program the administration intends to submit to the legislative body for approval.

In business budgeting each ongoing program should be subjected to rigorous management scrutiny at budget preparation time to make sure that there is a valid reason for continuing the program at all. If the program should be continued, then the management must decide whether the prior allocation of resources to the program is optimal, or whether changes should be made in the assignment of personnel, equipment, space, and funds. In a well-managed governmental unit the same sort of review is given to each continuing program. The mere fact that the program was authorized by a past legislative body does not mean that the administration may shirk its duty to recommend discontinuance of a program that has ceased to serve a real need. If the program should be continued, in the judgment of the administration, the appropriate level of activity and the appropriate allocation of resources must be determined; this determination takes far more political courage and management skill than the common practice of simply extrapolating the trend of historical activity and historical cost.

If the administration is convinced that a program should be continued, and that the prior allocation of resources is relatively appropriate, the preparation of the expenditure budget is delegated to the persons who are in charge of the program. In the case of a new program the administration states the objectives of the program, and sets general guidelines for the operation of the program, then delegates budget preparation to individuals who are expected to be in charge of the program when legislative authorization and appropriations are secured. In order to provide a means of ensuring that administrative policies are actually used in budget preparation and that the budget calendar and other legal requirements are met, it is customary to designate someone in the central administrative office, often the municipal finance officer, as budget officer. In addition to the responsibilities enumerated, the budget officer is responsible for providing technical assistance to the operating personnel who prepare the budgets. The technical assistance provided may include clerical assistance with budget computations as well as the maintenance of files for each program containing: (1) documents citing the legal authorization and directives, (2) relevant administrative policies, (3) historical cost and work load data, (4) specific factors affecting program costs and work loads, and (5) sources of information to be used in projecting trends.

Illustration 2–1 shows the performance budget for one department of a municipality. The reader may note that the first section of the illustration shows two columns for 1969–70; one headed "Department Request," and one headed, "Final Allowance." The former is self-explanatory; the latter indicates that the budget as prepared by departmental administrators has been subjected to review and revision by the central administration. Both columns are not always shown in the budget document but the

procedure of central review is generally considered essential because the total of departmental requests frequently exceeds the total of estimated revenues, so that it is necessary to trim the requests in some manner. Central review may also be necessary to make sure enough is being spent on certain programs. Good financial management of the taxpayers' dollars is a process of trying to determine the optimum dollar input to achieve the desired service output, not a process of minimizing input. Even though the expenditures budget is a legally prescribed document, the municipal administration should not lose sight of its managerial usefulness.

Illustration 2-3 presents a summary of the individual departmental performance budgets. The "Estimated Requirements" column of the summary budget is equivalent to the "Final Allowance" column of the individual departmental budgets, and is a presentation of the total departmental appropriations requested for the forthcoming fiscal year. For the sake

Illustration 2-3

SUMMARY EXPENDITURES BUDGET

	Expenditures		*Estimated*
Program	*Actual 1967-68*	*Estimated 1968-69*	*Requirements 1969-70*
General government:			
City Council	$ 6,250	$ 6,170	$ 6,450
City Manager	13,884	15,468	17,754
City Clerk-Treasurer	22,376	27,910	32,321
Finance	16,500	21,612	27,920
City Attorney	10,297	10,250	14,040
Planning	2,399	12,140	31,957
Personnel-purchasing	9,902	14,943	21,906
Engineering	30,695	46,424	56,203
Building maintenance	13,642	26,571	25,684
City garage	23,909	30,046	37,695
Community promotion	8,933	11,725	14,900
Elections	...	4,000	4,000
Total general government	$ 158,787	$ 227,259	$ 290,830
Public safety:			
Police	$ 171,012	$ 200,789	$ 237,832
Fire	111,431	141,653	153,810
Building inspections	15,394	16,552	18,811
Animal control	2,462	5,156	9,166
Civil defense	1,932	2,612	4,010
Total public safety	$ 302,231	$ 366,762	$ 423,629
Streets and highways:			
Streets and storm drain maintenance	$ 82,336	$ 141,568	$ 119,417
Street lighting and traffic signals	11,416	14,734	36,695
Total streets and highways	$ 93,752	$ 156,302	$ 156,112
Miscellaneous and contingencies	$ 84,750	$ 106,266	$ 30,000
Libraries	$ 43,033	$ 52,675	$ 66,772
Parks and recreation:			
Parks maintenance	$ 60,049	$ 157,009	$ 99,459
Recreation	33,888	50,109	53,820
Golf course	9,141	73,086	85,400
Total parks and recreation	$ 103,078	$ 280,204	$ 238,679

Illustration 2–3 (*continued*)

SUMMARY EXPENDITURES BUDGET

Program	Expenditures: Actual 1967–68	Expenditures: Estimated 1968–69	Estimated Requirements 1969–70
Electric service:			
Administration	$ 28,818	$ 29,708	$ 36,852
Utility accounting	19,927	20,822	25,075
Electric production	238,986	282,000	316,000
Electric distribution	178,140	213,376	143,236
Depreciation	10,000	20,000	22,400
Total electric service	$ 475,871	$ 565,906	$ 543,563
Sanitation and waste removal:			
Refuse service utility	$ 68,936	$ 86,066	$ 109,215
Sanitary sewers maintenance	15,371	14,963	33,851
Sewage disposal utility	36,836	43,340	55,907
Total sanitation and waste removal	$ 121,143	$ 144,369	$ 198,973
Water service:			
Administration	$ 12,256	$ 11,165	$ 14,454
Utility accounting	11,073	11,570	13,930
Water production, treatment and storage	50,911	63,096	70,115
Water distribution	38,283	89,753	51,143
Depreciation	10,000	20,000	20,000
Total water service	$ 122,523	$ 195,584	$ 169,642
Debt service:			
General obligation bonds:			
1951 Municipal hospital	$ 12,750	$ 12,663	$ 12,488
1956 Outfall sewer	34,445	38,720	37,916
1961 Sewer treatment plant	42,988	41,488	40,827
Total general obligation bonds	$ 90,183	$ 92,871	$ 91,231
Revenue bonds:			
1950 Sewage disposal plant	$ 13,045	$ 12,880	12,715
1958 Hospital revenue	28,903	29,330	28,780
1962 Golf course	13,706	27,413	27,483
1963 Hospital revenue	...	19,675	29,555
Total revenue bonds	$ 55,654	$ 89,298	$ 98,533
Total debt service	$ 145,837	$ 182,169	$ 189,764
Total Public Services Program Requirements	$1,651,005	$2,277,496	$2,307,964

of comparison, the expenditures for the current year (actual for the first 10 months of the year, plus estimates for the remainder of the year) and for the immediately preceding year are presented.

Budgeting capital expenditures

One feature of Illustration 2–1 to which the reader's attention has not been previously directed is the "Capital Outlay" section on the second page of the form. Accounting principles for business enterprises require that the cost of assets which are expected to benefit more than one period

be treated as a balance sheet item, rather than as a charge against revenues of the period. No such distinction exists in the pronouncements of the National Committee on Governmental Accounting, except for business operations of a governmental unit. As Illustration 2–1 indicates, expenditures for long-lived assets to be used in the general operations of a municipality are treated in the appropriations process in the same manner as are expenditures for salaries, wages, benefits, materials, supplies, and services to be consumed during the accounting period. Accounting control over long-lived assets used in general operations is established, however, as described in Chapter 13 of this text.

In the budget format illustrated, the "Capital Outlay" section of the departmental performance budgets is restricted to equipment and furniture; proposed major construction projects are presented separately, as shown by Illustration 2–4. Major expenditures for long-lived assets rarely can be financed from the revenues of any one year. Therefore it is

Illustration 2–4

CAPITAL IMPROVEMENTS PROGRAM SUMMARY

Project Number	*Project*	*1969–70 Requested Appropriation*	*Source of Funds*
	General government		
501	Parking facility adjacent to city hall	$ 37,400	General
502	Central stores warehouse	5,800	General
503	Corporation yard vehicle storage shed	8,500	General
504	Corporation yard fence and access roads	6,500	General
	Total general government	$ 58,200	
	Streets and highways		
505	Street resurfacing—select system	$ 18,000	General .... $ 6,000 186.1 Gas tax $12,000
506	Street resurfacing—local streets	12,000	2107 Gas tax
507	Darling Way bridge and street extension	56,750	186.1 Gas tax ...... $28,000 2107 Gas tax $28,750
508	Lincoln-Sierra bridge improvement	3,000	General
509	Atlantic-Berry street RR crossing	6,000	Capital outlay reserve
	Total streets and highways	$ 95,750	
	Sanitation and waste removal		
510	Storm drain improvements	$ 5,000	General
511	Sewer main enlargement	20,000	Sanitary sewer improvement
512	Sewer main replacement	5,000	Sanitary sewer improvement
513	Emergency power plant	10,000	1961 Treatment plant bonds
	Total sanitation and waste removal	$ 40,000	

Illustration 2-4 (*continued*)

CAPITAL IMPROVEMENTS PROGRAM SUMMARY

Project Number	*Project*	*1969-70 Requested Appropriation*	*Source of Funds*
	Parks and recreation		
514	Weber Park improvements	$ 3,000	Capital outlay reserve
515	Dry Creek footbridge	3,000	Capital outlay reserve
	Total parks and recreation	$ 6,000	
	Electric service		
516	Single-family services	$ 32,500	Electric operations
517	Apartment services	10,000	Electric operations
518	Commerical and industrial services	9,000	Electric operations
519	Line capacitor	4,000	Electric operations
520	Sectionalized switches	1,600	Electric operations
521	12KV cutover	15,000	Electric operations
	Total electric service	$ 72,100	
	Water service		
522	Mechanical water screens	$ 5,000	Water operations
523	Chlorine treatment building	4,500	Water operations
524	Fire hydrants	3,000	Water operations
525	Water main enlargement	13,000	Water operations
526	Automatic well and reservoir controls	5,000	Water operations
527	12" main—Riverside Ave. to Westwood Terrace	6,000	Water operations
528	8" main—Main Street to Lawton on Vallejo	6,700	Water operations
529	Rerouting 20" main—Vernon Street and Washington Blvd.	9,000	Water operations
	Total water service	$ 52,200	
	Hospital		
530	Hospital expansion	$ 400,000	1963 Hospital Revenue Bonds
	Total capital improvements	$ 724,250	
	Public services program requirements (Illustration 2-3)	2,307,964	
	Total Estimated Expenditure Requirements	$3,032,214	

necessary that the revenue budgets be extended to include all means of financing proposed expenditures; and that the expenditures budgets be extended to include required repayment of existing debt, and required interest payments on existing and proposed debt. Illustration 2-3 shows proposed expenditures for interest and principal under the caption of "Debt Service." The reader will note that the total "Public Services Program Requirements," per Illustration 2-3, is carried to Illustration 2-4 and added to the "Total Capital Improvements" request, to show the "Total Estimated Expenditure Requirements." The latter figure agrees

with the "Total Resources Available for Appropriation" shown as the final figure on Illustration 2–2. For the convenience of the legislative branch and interested taxpayers, the administration of the municipality whose budgets are illustrated in this chapter presented a schedule showing the reconciliation and interrelationships of Illustrations 2–1, 2–2, 2–3, and 2–4; this schedule is reproduced here as Illustration 2–5.

Effective financial management requires that the plans for any one year be consistent with intermediate and long-range plans. Municipal programs, such as the construction or improvement of streets; construction of bridges and buildings; acquisition of land for recreational use, parking lots, and future building sites; and urban renewal all may require a consistent application of effort over a span of years. Consequently, the need for municipal administrators to present to the legislative branch, and to the public, a "Capital Improvement Program," as well as the revenue and expenditure budgets, is rather widely recognized. Illustration 2–6 shows one such presentation which combines the projection of recommended improvements for five years beyond the forthcoming budget year with the proposed means of financing them.

Budget administration

Acceptance and adoption of the budget is evidenced by the signing of the certificate of validation by members or representatives of the legislative body and by the chief executive or a representative of the executive department. However, the budget may not yet have the force of law. In one state, budgets of all local units must be examined and approved by a county tax adjustment board which is empowered to reduce but not to increase appropriations. All budgets which will require more than a statutory maximum tax rate after action by the tax adjustment board are required by law to be submitted to a state tax board which, after a hearing, may increase, decrease, or approve the budget without change. Thereupon, the budget is certified back to the local unit and becomes the pattern for its financial operations during the year to come.

As soon as possible after final certification of a budget, public announcement should be made of tax levies for the coming year (Illustration 15–2), especially if any part of the levy is new or if rates or other provisions are different from those of the current year; these measures will facilitate collections. Property tax levies should be converted to individual tax bills before the beginning of the period to which the taxes apply, in order that tenders of payments may be accepted without delay. If revenue collections normally lag in each year, arrangements for short-term financing may be necessary; and if so, arrangements as required by law should be made in advance.

On the expenditure side of the budget, it may be desired to regulate the use of appropriations so that only specified amounts may be used from month to month or from quarter to quarter. The purpose of such control

Illustration 2–5

SUMMARY OF GOVERNMENTAL OPERATIONS

Distributed by Funds
Fiscal Year 1969–70

	Resources				Resources	Requirements			
			Inter-Fund Transfers						
Funds	*Prior Year's Revenues*	*Current Revenues*	*To*	*From*	*Total Resources*	*Public Services*	*Capital Improvements*	*Total Requirements*	*Restricted Balances June 30, 1970*
General operations									
General	$ . . .	$ 678,307	*a)* $428,654	*b)* $ 32,488	$1,074,473	$1,002,273	$ 72,200	$1,074,473	$ . . .
Traffic safety	. . .	28,000			28,000	28,000	. . .	28,000	. . .
Auto-in-lieu	. . .	95,000			95,000	95,000	. . .	95,000	. . .
2107 Gasoline tax	4,069	63,150			67,219	22,000	40,750	62,750	4,469
186.1 Gasoline tax	22,200	43,700			65,900	7,200	40,000	47,200	18,700
Golf course operations	. . .	126,625		*c)* 27,483	99,142	85,400	. . .	85,400	13,742
Capital outlay reserve	11,700	6,500			18,200	. . .	12,000	12,000	6,200
Sanitary sewer improvement	. . .	40,000			40,000	. . .	25,000	25,000	15,000
Utilities									
Electric operations	25,000	860,000	*b)* 20,000	*a)* 289,337	615,663	543,563	72,100	615,663	. . .
Water operations	20,000	275,000		*a)* 73,158	221,842	169,642	52,200	221,842	. . .
Refuse operations	10,000	112,000		*a)* 12,785	109,215	109,215	. . .	109,215	. . .
Sewage disposal operations	6,996	115,000		*a)* 66,089	55,907	55,907	. . .	55,907	. . .
Debt service									
1951 Hospital bonds	. . .	. . .	*b)* 12,488		12,488	12,488	. . .	12,488	. . .
1956 Outfall sewer bonds	. . .	37,916			37,916	37,916	. . .	37,916	. . .
1961 Treatment plant bonds	. . .	40,827			40,827	40,827	. . .	40,827	. . .
1950 Sewer plant revenue bonds	. . .	. . .	*a)* 12,715		12,715	12,715	. . .	12,715	. . .
1958 Hospital revenue bonds	. . .	28,780			28,780	28,780	. . .	28,780	. . .
1962 Golf course revenue bonds	. . .	. . .	*c)* 27,483		27,483	27,483	. . .	27,483	. . .
1963 Hospital revenue bonds	. . .	29,555			29,555	29,555	. . .	29,555	. . .
Bond construction									
1961 Treatment plant construction	10,000	. . .	. . .	. . .	10,000	. . .	10,000	10,000	. . .
1963 Hospital construction	400,000	. . .	. . .	. . .	400,000	. . .	400,000	400,000	. . .
Total	$509,965	$2,580,360	$501,340	$501,340	$3,090,325	$2,307,964	$724,250	$3,032,214	$58,111

Illustration 2–6

CAPITAL EXPENDITURES BUDGET

PUBLIC BUILDINGS AND FACILITIES

Plans for the new civic center (recreation center and library) are moving along and construction is due to begin early in FY 1968. The voters of Oak Ridge overwhelmingly approved a bond referendum for this project in the amount of $1,800,000 in November 1966. Detailed construction plans are presently being prepared and approval is expected shortly. The new Civic Center will replace inadequate and obsolete facilities at Ridge Hall and the Wildcat Den. Relocation of Midtown Ball Park No. 1 must be finished prior to the start of construction.

The Scarboro Neighborhood Center has been delayed to FY 1969 to allow time for the preparation of more material on the specific needs, location, federal qualifications, etc., of this proposed project.

The Mayor's Industrial Site Committee has recommended the purchase of "Site X" (230 acres for development as an industrial area. $5,000 has been included in the FY 1968 budget for a partial down payment for this site.

Preliminary plans for a new airport have been carried over from the 1967 program and have been revised and scheduled for FY 1969 and FY 1970. The refuse burner and/or sanitary landfill has also been rescheduled for FY 1970. The determination will be made at that time as to whether a refuse burner is necessary to conserve land.

A new building is needed to replace the present animal shelter. It would include a cage area, enclosed loading area, disposal room, office, toilet, and mechanical services.

CAPITAL IMPROVEMENTS PROGRAM

Fiscal Years 1968 through 1973
Public Buildings and Facilities

Priority	*Project*	*F.M.**	*FY'68*	*FY'69*	*FY'70*	*FY'71*	*FY'72*	*FY'73*	*Total 6 Years*
1	O.R. Public Library —replacement	2	$ 802,940						$ 802,940
2	Community Center	2	997,060						997,060
3	Scarboro Neighborhood Center..	1, 5		$100,000					100,000
4	Purchase industrial "Site X" (230 acres)........	1	5,000	9,000	$ 8,600	$8,300	$8,000	$7,700	46,600
5	Airport—engineering and construction...	2a, 5, 7		50,000	389,000				439,000†
6	Animal shelter....	1		27,000					27,000
7	Refuse burner, Model 525, dia. 52½ ft. or sanitary landfill.......	1			85,000				85,000
8	Health and welfare center........	2a			100,000				100,000
	Total............		$1,805,000	$186,000	$582,600	$8,300	$8,000	$7,700	$2,597,600
	Financing Method								
	Operating revenue (general fund).	1	$ 5,000	$ 69,333	$ 93,600	$8,300	$8,000	$7,700	$ 191,933
	General obligation bonds (voted)	2	1,800,000						1,800,000
	General obligation bonds (to be voted).......	2a			154,875				154,875
	Federal, state.....	5		66,667	384,125				450,792
	Public works advance for planning......	7		50,000	(50,000)				...
	Total............		$1,805,000	$186,000	$582,600	$8,300	$8,000	$7,700	$2,597,600

† Estimates are based on the Hardin Valley site. The Black Oak Ridge site has been recommended, but no estimates have been made. Major severance damages are implied if this site is selected.

is to prevent expenditure of all or most of the authorized amount early in the year, without providing reserves for unexpected requirements arising later in the year. A common device for regulating expenditures is the use of allotments. An allotment may be described as an internal allocation of funds on a periodic basis usually agreed upon by the department and the chief executive or his representative. While variable in form, allotment schedules are essentially period allocations of the amount appropriated for specified purposes.

Recording the budget

Numerous details of accounting for transactions closely related to the budget are set forth in subsequent chapters, particularly those on general fund revenues and expenditures and general fund operations; entries to record adoption of the budget are illustrated in this chapter. Two basic requirements must be accomplished by the accounting entry or entries recording the budget's provisions:

1. The total amount of expenditures authorized by the legislative body must be recorded by a credit to Appropriations.
2. The resources provided or contemplated by the legislative body for financing the authorized expenditures must be recorded by a debit to Estimated Revenues.

Estimated Revenues and Appropriations are controlling accounts; each is supported by subsidiary ledger detail, as described in Chapters 4 and 5. At the time that Estimated Revenues is debited to recognize the addition to the resources of the municipality, an offsetting credit may be made to Fund Balance, an account which serves the function of the net worth accounts in commercial accounting. Thus if a revenue budget totaling $706,000 for the general fund of a municipality is adopted by the legislative body, the following entry might be made to enable proper recording of the facts in general ledger and subsidiary ledger accounts:

Estimated Revenues			706,000	
Fund Balance				706,000
To record the revenue budget approved for the year 1970.				
Estimated revenues:				
Taxes:				
Taxes on real property	$166,000			
Taxes on personal property	50,000	$216,000		
Licenses and permits:				
Vehicle licenses	$ 4,000			
Parking meter receipts	8,000	12,000		
Various others		478,000		
Total Estimated Revenues		$706,000		

Similarly, at the time that Appropriations is credited to recognize the allocation of municipal resources by the legislative process, Fund Balance

should be debited. Assuming the municipal general fund appropriations enacted by the legislative branch totaled \$700,000, the following entry might be made to enable proper recording of the facts in the general ledger and subsidiary ledger accounts:

Fund Balance		700,000	
Appropriations			700,000
To record the expenditure budget approved for the year 1970.			

Appropriations:		
General government:		
Council	\$ 4,000	
Various others	70,000	\$ 74,000
Public safety:		
Police Department:		
Supervision	\$12,000	
Various others	80,000	92,000
Fire Department:		
Supervision	\$10,000	
Various others	56,000	66,000
Various others		468,000
Total Appropriations		\$700,000

It would, of course, be perfectly satisfactory to combine the entries illustrated above, and show only the net effect upon Fund Balance, and this is often done in practice.

Budget control reports

During a fiscal year the actual collections of revenues need to be compared periodically with the budgeted collections in order to evaluate both actual performance and budgeting techniques. Similarly, the actual expenditures need to be compared with the appropriations to facilitate financial management and control over operations, and because the administration is subject to legal penalties for overspending appropriations. Illustration 2–7 shows a common form of periodic control report.

Budget control reports may disclose circumstances that make it desirable to amend a budget during the period it covers. Reduction of amounts originally appropriated may be necessary because of revenue curtailment. The entry for such a change would be as follows, using an assumed amount:

Appropriations	24,000	
Estimated Revenues		24,000

Subsidiary ledger debits and credits would supplement each of the above controlling accounts. Any difference between the two kinds of reductions would be accounted for by debiting or crediting Fund Balance as required.

Appropriations may need to be increased to cover requirements unforeseen when the budget was enacted or to authorize additional expenditures for purposes not adequately provided for in the first place. The

Illustration 2–7

TOWN OF CRANDALL
Monthly Budget Report
Revenues

Submitted by: Marion Ohler, Treasurer
Date: March 31, 1970

		March			Year to Date			
Items	*Estimate for Year*	*Budget Estimate*	*Actual Revenue*	*Over (or Under*) Estimate*	*Budget Estimate*	*Actual Revenue*	*Over (or Under*) Estimate*	*Balance Not Realized*
General fund:								
Taxes	$ 376,400	$ 3,000	$ 2,800	$ 200*	$370,200	$371,800	$ 1,600	$ 4,600
Licenses and permits	11,300	900	950	50	2,400	2,100	300*	9,200
Fines and forfeits	5,900	600	610	10	1,200	1,350	150	4,550
Various others	405,000	31,000	33,400	2,400	128,600	122,700	5,900*	282,300
Totals	$ 798,600	$35,500	$37,760	$2,260	$502,400	$497,950	$ 4,450*	$300,650
Library fund:								
Taxes	$ 78,300	$ 600	$ 570	$ 30*	$ 76,700	$ 76,900	$ 200	$ 1,400
Intergovernmental revenue	14,050				7,025	7,025		7,025
Charges for services	2,600	300	250	50*	730	810	80	1,790
Totals	$ 94,950	$ 900	$ 820	$ 80*	$ 84,455	$ 84,735	$ 280	$ 10,215
Various other funds	$ 343,900	$15,900	$13,200	$2,700*	$ 92,300	$105,600	$13,300	$238,300
Totals, All Funds	$1,237,450	$52,300	$51,780	$ 520*	$679,155	$688,285	$ 9,130	$549,165

increase may be financed out of the fund balance or out of anticipated revenues in excess of the amount originally estimated. To record an increase of appropriations out of the fund balance an entry such as the following might be made, using an assumed amount:

Fund Balance	50,000	
Appropriations		50,000

The credit to Appropriations would be supplemented by credits to subsidiary accounts representing the purposes covered by the action. If the additional appropriation were based on an expectation of more revenue than originally anticipated, Estimated Revenues would be substituted for Fund Balance in the foregoing entry.

A third type of interim change in a budget consists of transferring amounts of authorizations from one purpose to another. Thus, if it is discovered that an amount appropriated for one purpose apparently is in excess of requirements for the year, whereas that appropriated for another is inadequate, the legislative body may act to effect a transfer from the former to the latter. The transfer having been approved according to law, an entry such as the following might be made:

Appropriations	4,000	
Appropriations		4,000
To record transfer of appropriation.		
Debit: Police Department, traffic control	$4,000	
Credit: Fire Department, fire prevention	$4,000	

Obviously, the net effect of the above entry is reflected in the subsidiary account changes. There might be some disposition to record the change by direct postings to the subsidiary ledger accounts. However, it is better to record the offsetting debit and credit in the Appropriations account in order to give exact correlation between entries in controlling and subsidiary accounts. Also of importance is the need for showing in the general ledger all changes in the budget.

Accounting for allotments

In the event a governmental unit desires close control over expenditures by periods, allotments may be formally recorded in ledger accounts. This procedure might begin with the budgetary entry, in which Unallotted Appropriations would replace Appropriations, as follows:

Estimated Revenues	1,000,000	
Unallotted Appropriations		990,000
Fund Balance		10,000

If it is assumed that $300,000 is the amount formally allotted to departments or divisions for the first period, the following entry could be made:

Unallotted Appropriations	300,000	
Allotments		300,000

Expenditures can be recorded periodically on a monthly or other time basis as reports are received from using departments or divisions. Under this procedure, closing entries transfer Expenditures balances into Allotments, and Allotments balances into Unallotted Appropriations.

Budgets for other funds

The foregoing discussion of budgets applies principally to those of general funds. Other types of funds operate under budgets of varying forms, some similar, some widely different from general fund budgets.

Most similar to general fund budgets are those of special revenue funds, which, as stated earlier, in some instances are analogous to general funds for the activities they represent. Regulations governing control of special revenue fund budgets frequently differ from those applying to general fund budgets, since special revenue funds are often managed by special boards or commissions, and their relationship to the general government is likely to affect budgeting procedure. However, this influence lies principally in the mechanics of budget preparation and subsequent handling; so, from an accounting standpoint, general fund and special revenue fund budgets are much alike, differing mostly in size and complexity.

Opinions and practices vary widely with respect to budgeting for the six other types of funds. Ordinarily budgets are not necessary for trust or agency trust funds; however, memorandum budgets are sometimes prepared for semicommercial trust funds. As to intragovernmental service funds, the consensus is that a formal budget incorporated in fund accounts might actually hamper fund management in providing the services desired of the fund. Even so, laws sometimes require that intragovernmental service funds be operated under a formal, recorded budget; but unless such is the case, intragovernmental service fund budgets should be only memorandums in form and effect. Use of budgets for intragovernmental service funds is discussed at greater length in Chapter 9. Debt service funds do generally require formal annual budgets because the funds must handle the payment of interest on all outstanding issues of general obligation debt other than that payable from special assessment and enterprise funds, as well as the redemption of debt maturing during the year, as is discussed in Chapter 7.

Capital projects funds and special assessment funds are two types of funds employed to account for resources devoted to construction or other means of acquiring fixed assets. The formal authorizations for these two kinds of funds are equivalent to project budgets in that they authorize expenditures up to a given amount. Project budgets may be supplemented by annual budgets which afford closer control by the legislative body, by dividing the total authorization into segments, each of which receives final approval in the light of progress and developments to date. Annual or other short-term budgets are necessary for a capital projects fund created to finance a number of related projects.

Opinions differ as to the desirability of controlling enterprise funds through the requirement of formal budgetary accounting, but the majority opinion is opposed to this practice. However, laws or other regulations sometimes dictate the use of formal budgets, and in those cases the legislative body has no independent discretion. It is important to note that budget preparation for governmental utilities involves a problem common to commercial budget preparation, namely, the interdependence of revenues and expenses.

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QUESTIONS

1. Why is the National Committee on Governmental Accounting's definition of a budget (quoted on the first page of this chapter) incomplete? What is the modern concept of budgeting?
2. What groups, in addition to the legislators, have needs which can be served at least partially by the budget document of a municipality? For one of the groups you name, list the more important needs and describe in what manner they may be met by the budget document.
3. Describe concisely the interrelationship of municipal revenue and expenditure budgets. Compare this with the interrelationship that exists in business budgeting.
4. Why is the preparation of revenue budgets ordinarily centralized in the municipal finance office, and the preparation of expenditure budgets decentralized throughout the administration?
5. What are some of the factors to be taken into account in preparing revenue estimates for inclusion in a budget?

6. What is the relationship between cost accounting and performance budgeting?
7. Can you see any reason why budgets for capital expenditures should be prepared on a long-term basis, even though the total amount is not to be appropriated for the next year?
8. In the budget summary prepared for a certain governmental unit, the balancing figure under "resources" was "excess of expenditures over revenue." Explain what is signified by such information.
9. What would be the result, and what action could be taken, if a legislative body failed to give legal approval to a budget before the date when it is supposed to go into effect?

PROBLEMS

1. In 1968 a state general assembly authorized enactment of local sales tax ordinances. Under authority of this statute, the city of Crawford enacted such an ordinance, effective in 1969. By June 30, 1969, collections had fallen short of estimates for the first half of the year by the amount of $18,450, with no convincing prospect of recovery during the second half. The city council decided to reduce the estimate of sales tax revenue by $25,300 for the year, partially offset by the following reductions in appropriations:

Personal services	$12,100
Purchase of equipment	6,000
Planning services	2,000
Purchase of land	5,000

Make entries in the form illustrated in the chapter to record the above amendments. Include subsidiary estimated revenue and appropriations accounts.

2. The common council of Redwood City adopted for the city general fund a budget which is shown below in summary form:

Appropriations:	
Personal services	$206,400
Contractual services	48,200
Commodities	104,700
Other charges	66,500
Estimated revenues:	
Taxes	$211,800
Licenses and permits	25,800
Fines and forfeits	36,900
Intergovernmental revenue	149,100
Charges for services	6,600

On January 1, a new administration assumed office in the city and immediately took steps to revise the budget. After taking all necessary legal action, the council formally approved the following changes on February 16.

Increases:	
Personal services	$25,000
Commodities	16,000
Licenses and permits	27,000
Fines and forfeits	3,600
Charges for services	13,500
Decreases:	
Contractual services	$ 1,700
Other charges	500
Taxes	6,000

You are required to do the following things:

a) Record the original budget as of January 1. For subsidiary ledger accounts, use the classes of appropriations and revenues listed in the budget information. Do not attempt to classify appropriations by function or revenues by source class.

b) Record, as of February 16, the amendment enacted by the city council following the directions set forth in (*a*).

c) Prepare a statement in two parts (estimated revenues and appropriations), showing in the first money column of each part the original budget figures; in the second and third money columns, the increases and decreases of February 16; and in the fourth column, the final budget figures.

3\. *a*) Assume that Redwood City had the same original budget as the one shown in Problem 2 but that it employs a system of quarterly allotments to enhance expenditure control. Record the complete budget as of January 1.

b) Assume that allotments for the first quarter were as follows, and make the appropriate entry as of January 1.

Personal services	$50,400
Contractual services	26,100
Commodities	19,600
Other charges	15,700

Show subsidiary ledger accounts for both unallotted appropriations and allotments.

c) Assume that during the fourth quarter permission was received from the legislative body to transfer $6,500 already allotted for commodities to personal services.

d) Assume that total allotments for the year were $418,700 [appropriation total same as in (*a*) above] and that expenditures reported by departments totaled $417,630. Make the required closing entries, omitting all reference to subsidiary ledger accounts. For a balancing account, if one is needed, use Fund Balance.

4\. The city of Ellender is located in a state requiring all budgets to be advertised in August preceding the calendar year to which they apply. The city auditor assembled the following schedule related to revenues of the municipality.

Revenues	1968 (Actual)	1969: 7 Months (Actual)	1969: 5 Months Left (Estimated % of 7 Months)	1970 (Estimated % of 1969)
Licenses	$231,488	$147,165	70%	85%
Engineering fees	23,390	12,830	120	110
Market rentals	22,668	17,650	40	120
Municipal auditorium fees	20,982	16,410	30	90
Golf fees	42,517	28,540	50	110
Zoo admissions	31,905	18,775	60	100
Traffic fines	87,118	63,511	75	105
Rural fire service	1,650	1,520	90	200
Parking meter receipts	105,201	65,933	70	150

From the information given, you are required to prepare a revenue budget for 1970; in your budget statement compare each item with the actual revenue from the item in 1968, and the estimated total revenue from the item for 1969.

5. From the information given below, you are required to prepare a work program for certain operations for the city of Trenton for 1970. Monthly figures need be shown for January and February, only.

Estimated volume and unit costs for 1969 are as follows:

Operation	*Units*	*Unit Cost*
A	60,000	$0.75
B	48,000	0.60

Percentages of estimated annual volume for January and February, 1970 are as follows:

Operation	*January*	*February*
A	10 percent	15 percent
B	5 percent	5 percent

Composition of unit costs by percentages for the three operations for 1969 is estimated as follows:

Item	*Operations* A	*Operations* B
Labor	80%	60%
Materials	16	30
Supervision	4	5
Machine rental	...	...
Operation and maintenance of equipment	...	5

The following changes are expected for 1970:

1. Cost of labor per hour will increase 20 percent.
2. Time required per unit will increase 15 percent.

3. Cost of materials will increase 30 percent.
4. Due to improved engineering processes, quantity of materials is expected to decrease on an average of 10 percent per unit.
5. The cost of supervision per unit will increase 5 percent.
6. Operation and maintenance of equipment will increase 25 percent.
7. For operation *A*, it is proposed to substitute machine work for one half the labor, at a cost of $0.30 per unit for machine rental.

Volume changes for 1970 are estimated as follows:

Operation	*Percentage Change*
A	+10
B	+15

For each cost element (labor, material, etc.), compute unit cost to the nearest tenth of one cent, and report estimated unit costs for 1970 as the totals of all elements.

6. Below is given a collection of information compiled for preparation of the general fund budget for the town of Hillsdale for 1970.
   a) The town proposed to levy taxes of $250,000 on real property and $95,000 on personal property. It was estimated that 98 percent of real estate taxes and 90 percent of personal property taxes would be collected. The town employs the accrual basis in accounting for revenue from property taxes.
   b) The town clerk estimated at the time of preparing the 1970 budget that the general fund would receive $136,290 cash during the remainder of 1969.
   c) It was estimated that expenditures during 1970 would total $395,370.
   d) Fund balance of the general fund at July 31, 1969, when the budget was being prepared, was $27,166.
   e) It was expected that the town board would find it necessary to make an additional appropriation of $17,650 to complete 1969 operations.
   f) Nontax revenue estimates for 1970 were as follows:

Licenses and permits	$ 7,600
Fines and forfeits	23,900
Intergovernmental revenue	62,000
Charges for services	1,650
Miscellaneous revenue	800

   g) It was expected that 1970 collections of taxes levied in 1969 and prior years would total $31,600.
   h) Appropriations to be requested from the town board were as follows:

Personal services	$240,000
Contractual services	35,000
Commodities	110,000
Other charges	40,200

Some of the above information is pertinent to a budget summary, and some is extraneous. You are required to select that which is pertinent and, with it, to prepare a summary for the proposed budget for the town of Hillsdale general fund for 1970.

7. Below is given a collection of financial and other supplementary data relating to operation of the city engineer's office of the city of Salem. From the information provided, you are required to prepare a departmental budget.

a) Personal services. Salary increases of $70 and $40 per month, beginning on January 1, for the city engineer and his assistant, respectively, were included in the departmental estimate. In addition, $500 was to be requested for extra help. Special vacation pay is to be eliminated.

b) Telephone and postage charges are to be included at $25 in excess of the amount expected to be spent in the current year. Repairs to equipment are to be included at twice the current annual amount. Travel in the budget year is expected to total 30,000 miles at 10¢ per mile. Photography and blueprinting service costs are expected to exceed the current annual costs by $100.

c) The only change in commodities as compared with current annual cost is the addition of $325 for purchase of surveying equipment.

d) Pension contributions are expected to increase in the amount of $5.50 per month.

		Current Year	
Explanation	*Prior Year Actual*	*Actual to Date*	*Estimated Remainder of Year*
Personal services:			
City engineer	$10,000	$ 7,000	$5,000
Assistant engineer	7,000	4,200	3,000
Vacation pay	540	240	300
Total	$17,540	$11,440	$8,300
Contractual services:			
Telephone and postage	$ 281	$ 176	$ 118
Repairs to equipment	107	21	40
Travel	2,006	1,319	920
Photography and blueprinting service	112	83	75
Total	$ 2,506	$ 1,599	$1,153
Commodities:			
Official records	$ 38	$ 47	$ 10
Stationery and supplies	109	77	65
Total	$ 147	$ 124	$ 75
Other charges:			
Pension contributions:	$ 877	$ 527	$ 415
Grand Total	$21,070	$13,690	$9,943

CONTINUOUS PROBLEM

2–L. The city council of the city of Bingham (see Problem 1–L) adopted the following budget for the general fund.

General Fund	*Original Budget*
Estimated revenues:	
Taxes	$2,365,000
Licenses and permits	93,000
Fines and forfeits	206,000
Intergovernmental revenue	831,000
Charges for services	56,000
Miscellaneous revenue	57,000
Total estimated revenues	$3,608,000
Appropriations:	
General government:	
City council and clerk	$ 42,000
Central administration	127,500
Municipal court and attorney	63,700
Finance	184,800
Personnel	24,000
Public safety:	
Police	580,200
Fire	586,100
Building safety	71,400
Animal pound	8,500
Traffic engineering	83,800
Public works	688,000
Health	140,000
Public welfare	206,000
Recreation	380,000
Contributions	348,000
Miscellaneous	46,000
Total appropriations	$3,580,000

You are required to:

a) Record the budget in the general journal. Include general ledger accounts, subsidiary ledger accounts, and adequate explanations for each entry (and for all journal entries in all "L" problems).

b) Post the entries to *general* ledger accounts. Do not open subsidiary ledger accounts until instructed to do so in subsequent "L" problems.

Chapter 3

General Funds: General Operation

General funds are created and maintained to finance the general, overall functions of a governmental unit. Ordinarily designated "general fund," various other captions such as "current fund" and "operating fund" are encountered. The true test of identity is purpose and not name. Any fund which provides for financing the general administration of the unit to which it pertains is a general fund, whatever its name. General funds provide an accounting structure for any activity for which a special (not necessarily special revenue) fund has not been provided. They, along with special revenue funds, are often referred to generically as *revenue* funds.

Although the prevailing concept of a general fund is that of a continuing arrangement, with its accounting conducted on that basis, it has some aspects of an uninterrupted series of funds, in that activities of each fiscal period consist largely of giving effect to a budget enacted specifically for that period. This peculiarity is manifested in the accounting procedure for appropriations, revenue estimates, and tax levies, all of which operate on a fiscal-period basis. Thus, although the general fund as a legal entity enjoys continuous existence, its actual functioning depends upon regular periodic revival or renewal through legislative authorizations. In government, fiscal periods of one year predominate; but several states employ a biennial term.

Elsewhere, it has been pointed out that the necessity of complying with legal provisions has an important effect upon governmental accounting. Operation within the limitations of the periodic budget is one legal provision of great importance to the general fund. In order to make sure of conforming to budget limitations, general funds of any considerable size should employ two sets of accounts which, nevertheless, may be combined in one ledger. These groups are described as (1) budgetary and (2) proprietary. Budgetary accounts serve principally to record the legislative body's authorization to spend for specified purposes and its estimate of revenue to be derived from various sources and therefore available for financing its authorizations. They represent potential revenues and potential expenditures.

To avoid exceeding the amount authorized to be spent for goods and services it is important to maintain a record, not only of expenditures already made by recording of liabilities or payments of cash, but also of purchase orders not yet filled and other contracts outstanding for acquisition of goods or services. Unfilled purchase orders and other contracts are expenditure transactions which have not yet reached the firm liability or cash disbursement stage, but even so they represent transactions which governmental accounting characterizes as encumbrances, or commitments. An encumbrance situation is proprietary in nature with respect to the contingent liability which it embodies (liability to pay for goods or services upon delivery), and budgetary in representing a future expenditure to be deducted from the total amount authorized for expenditure.

The fiscal-year accounting cycle for a general fund begins with recording the budget enacted by the governmental unit's legislative body. Assuming that the budget for next year authorizes expenditures of $640,000 while providing for the raising of revenue in the estimated amount of $650,000, an entry in the following form will be made:

Estimated Revenues	650,000	
Appropriations		640,000
Fund Balance		10,000

It would be journalized in a general journal, on a journal voucher, in a register, or in some other representation of a journal, frequently electronically or mechanically produced.

The authority upon which such an entry is based is the budget legally enacted by the legislative body. Estimated revenues and appropriations (authorizations to spend) could be journalized in separate entries if so desired but the two elements are interrelated in the budget so the two-part entry, in contrast with two separate entries, would seem to have the support of logic. Interpreted, the entry states in accounting terminology and form that the unit's executive branch has authority to obtain $650,000 of revenue in the form of assets, of which it is authorized to spend $640,000, with $10,000 retained for unforeseen needs or for carry-over to the next year.

If it appeared that the general fund might conclude the current year with an unused balance to its credit, the legislative body might see fit to finance part of the $640,000 appropriations for next year from the anticipated balance. In that event, tax rates and tax levies would be adjusted to raise something less than the amount appropriated, the difference to be obtained from unused resources to be carried from the current to the ensuing year. Assuming an expected excess of $20,000 or more, the legislative body might provide for tax revenue of only $620,000. The entry for such a budget would be as follows:

Estimated Revenues	620,000	
Fund Balance	20,000	
Appropriations		640,000

This entry means that the legislative body's authorization is to be financed by resources of $20,000 expected to be on hand at the end of the present year and $620,000 expected to be raised through the following year's collections. Both the Estimated Revenues and the Appropriations accounts are controlling accounts. Actual journal entries affecting them must show in detail the subsidiary accounts to be changed, in order that postings may be made to subsidiary ledger accounts.

If part of the revenue anticipated to finance general fund activities is to be derived from property taxes, the legislative body will have provided for such a levy in the tax ordinance enacted as part of its budget. Assuming that a tax of $480,000 is levied, of which $8,000 is expected to be uncollectible, the following entry would be made:

Taxes Receivable—Current	480,000	
Revenues		472,000
Estimated Uncollectible Taxes—Current		8,000

Taxes Receivable is a controlling account supported by detailed charges and credits to individual taxpayers' accounts. It will be noted that provision for estimated loss in the above entry is effected by considering the expected amount of loss as a reduction of revenue, in contrast with commercial practice, which would treat the entire levy as revenue, with the estimated loss recorded in a separate entry as an expense. The logic of this difference is that, in commercial practice, granting of credit is a managerial function; and credit losses, regarded as caused by errors in judgment, are expenses of management. In government, on the other hand, tax levies apply comprehensively to all taxpayers within the tax district; and if some taxes cannot be collected, the loss is inherent in the system and not a fault of administration. Furthermore, treating loss on uncollectible taxes as an expenditure would require the amount to be included in the appropriations for the period represented. Notwithstanding arguments against this method, it is sometimes required by law or ordinance. It will be illustrated in Chapter 15.

Entries for collection of taxes receivable follow the pattern of entries for collection of accounts receivable. Assuming collections of $400,000 on taxes receivable, the following entry would be required:

Cash	400,000	
Taxes Receivable—Current		400,000

Individual taxpayers' accounts will be credited for a total of the amounts received.

Some revenue from taxes and other sources cannot be recorded until collections are received. Assuming collections of $424,000 of such revenue, the entry would be as follows:

Cash	424,000	
Revenues		424,000

Encumbrance (or commitment) accounting

The nature of encumbrances was discussed in a preceding paragraph. Not all encumbrances are formally recorded in the accounts of the fund. Since salaries and wages are rather definitely determined in advance for a whole year, many smaller units of government forego encumbering the appropriation for personnel costs. Commitments for transactions of relatively small size compared with the total to be spent for all purposes may safely be omitted without danger of overspending. Although not a common situation for general funds, if the size of the fund is small, with no great volume of transactions, encumbrance accounting may sometimes be safely omitted. The standard encumbrance entry for issuance of a purchase order or other similar transaction, assuming the amount of $9,000, would be as follows:

Encumbrances	9,000	
Reserve for Encumbrances		9,000

The Encumbrances account is a controlling account. Detail postings of amounts committed or encumbered will be made to subsidiary ledger accounts in a manner described elsewhere. A simple statement of the effect of the encumbrance recorded above is as follows:

Total amount authorized for expenditure	$640,000
Amount encumbered	9,000
Balance available for encumbrance and expenditure	$631,000

A transaction passes from the encumbrance or contingent liability stage to the expenditure or firm liability stage when some action occurs to make the governmental unit liable for payment. This may be the receipt or acceptance of goods or services, or some other condition or occurrence recognized as creating an actual liability. Entry of the expenditure and its accompanying liability will be preceded by an entry reversing or canceling the encumbrance. Assuming the purchase order to have been for $600 and the invoice for the same amount, the following entries would be made:

Reserve for Encumbrances	600	
Encumbrances		600
Expenditures	600	
Accounts Payable (or Vouchers Payable)		600

The Expenditures account is a controlling account. In both the general and the subsidiary ledgers the Expenditures debit above replaces the amount previously carried as an encumbrance. It will be seen that at any given time during a fiscal period the amount of authorizations remaining free and available for encumbrance and expenditure will be the excess of total appropriations over the sum of expenditures and encumbrances to date. Encumbrances, as used above, refers to those transactions which have not yet passed from the contingent to the actual liability stage.

General fund liabilities are liquidated in the usual manner for such transactions, the following entry representing payment in cash to the amount of $5,000:

Accounts Payable (or Vouchers Payable)	5,000	
Cash		5,000

At the ends of fiscal periods, financial statements are prepared to exhibit the financial condition of the fund as well as to set forth other information of significance and value to those responsible for the administration of the fund. These will be treated in detail at a later time.

Illustrative entries

To illustrate the periodical accounting cycle of a general fund, a series of summary transactions and entries will be shown for the imaginary town of Lynn general fund, which, it will be assumed, had the following trial balance after closing at December 31, 1968:

	Debit	*Credit*
Cash	$ 30,000	
Taxes receivable—delinquent	90,000	
Estimated uncollectible taxes—delinquent		$ 7,000
Due from other funds	5,000	
Vouchers payable		21,000
Fund balance		97,000
	$125,000	$125,000

1. For 1969, the town board had adopted a budget that authorized expenditures totaling $900,000, to be financed from estimated revenue of $876,000 and the remainder from the fund balance:

Estimated Revenues	876,000	
Fund Balance	24,000	
Appropriations		900,000

2. A tax levy of $726,000 was made in compliance with a tax ordinance passed by the town board. It was estimated that $18,000 of the amount would be uncollectible:

Taxes Receivable—Current	726,000	
Revenues		708,000
Estimated Uncollectible Taxes—Current		18,000

3. Pending collection of the taxes, the town issued tax anticipation notes of $230,000:

Cash	230,000	
Tax Anticipation Notes Payable		230,000

(The nature of tax anticipation notes will be explained in Chapter 14.)

4. Purchase orders for supplies were issued in the amount of $169,000:

Encumbrances	169,000	
Reserve for Encumbrances		169,000

5. Additional encumbrances were recorded for $80,000 of serial bonds to

be paid by the general fund during the year, with interest of $42,000 on all bonds outstanding (usually recorded in debt service fund):

Encumbrances	122,000	
Reserve for Encumbrances		122,000

6. Payrolls approved during the year, without encumbrance, totaled $584,000:

Expenditures	584,000	
Vouchers Payable		584,000

7. Invoices of $163,000 were received on purchase orders encumbered for $161,000:

Reserve for Encumbrances	161,000	
Encumbrances		161,000
Expenditures	163,000	
Vouchers Payable		163,000

8. Current taxes of $654,000 and delinquent taxes of $61,000 were collected during the year:

Cash	715,000	
Taxes Receivable—Current		654,000
Taxes Receivable—Delinquent		61,000

9. Other revenue, which had not been accrued, received during the year amounted to $169,000:

Cash	169,000	
Revenues		169,000

10. Tax anticipation notes were paid in full, with interest of $4,600:

Tax Anticipation Notes Payable	230,000	
Expenditures	4,600	
Cash		234,600

(Although this transaction consisted of the disbursement of cash, the amount of the principal was not debited to Expenditures. $230,000 of the transaction was repayment of money which had been borrowed. The interest payment was an expenditure, as well as a disbursement, because it was for service received, the use of money. Borrowing money and repaying it did not affect the amount subsequently available for expenditure. Payment for use of the borrowed money did affect the amount of authorization available.)

11. By the end of the year, all current-year taxes had become delinquent and with their allowance were transferred to that classification:

Taxes Receivable—Delinquent	72,000	
Estimated Uncollectible Taxes—Current	18,000	
Taxes Receivable—Current		72,000
Estimated Uncollectible Taxes—Delinquent		18,000

12. The bonds and interest referred to above became payable:

Reserve for Encumbrances	122,000	
Encumbrances		122,000
Expenditures	122,000	
Matured Bonds Payable		80,000
Accrued Interest Expense (or Interest Payable)		42,000

13. The total amount due from other funds at December 31, 1968, was collected:

Cash	5,000	
Due from Other Funds		5,000

14. Supplies in the amount of $7,300 were received during the year from the stores fund. Of that amount, $900 was unpaid at the end of the year:

Expenditures	7,300	
Due to Other Funds		900
Cash		6,400

15. Payments on vouchers payable during the year amounted to $740,000:

Vouchers Payable	740,000	
Cash		740,000

16. Matured bonds and interest were paid:

Matured Bonds Payable	80,000	
Accrued Interest Expense	42,000	
Cash		122,000

(The liabilities debited above might have been passed through the Vouchers Payable account before payment if required by established accounting procedure.)

17. The electric utility fund was billed for $5,000 in lieu of taxes:

Due from Other Funds	5,000	
Revenues		5,000

18. Delinquent taxes of $9,100 were adjudged to be uncollectible, and proper authorization was received for writing them off:

Estimated Uncollectible Taxes—Delinquent	9,100	
Taxes Receivable—Delinquent		9,100

After the above transactions have been posted, the trial balance will appear as shown in Illustration 3–1.

Depending upon the size and complexity of governmental fund operations adjusting entries may be desirable for producing more precise financial statements. They have been omitted here for brevity.

General fund closing entries

The major purpose of general fund closing entries is to dispose of the accounts employed during the year to measure compliance with the budget established by town of Lynn's legislative body. These consist of Estimated Revenues (the standard established by the budget) and Revenues, and Appropriations (the standard established by the budget) and Expenditures and Encumbrances. A second important purpose of the

Illustration 3–1

TOWN OF LYNN

General Fund
Before-Closing Trial Balance
December 31, 1969

	Debit	Credit
Cash	$ 46,000	
Taxes receivable—delinquent	91,900	
Estimated uncollectible taxes—delinquent		$ 15,900
Due from other funds	5,000	
Vouchers payable		28,000
Due to other funds		900
Fund balance		73,000
Estimated revenues	876,000	
Revenues		882,000
Appropriations		900,000
Expenditures	880,900	
Encumbrances	8,000	
Reserve for encumbrances		8,000
	$1,907,800	$1,907,800

closing entries is to transfer to Fund Balance the net difference between the balances of the standards accounts and of the accounts which measured performance, i.e., Revenues, Expenditures, and Encumbrances. The required closing entries at December 31, 1969, are as follows:

Revenues	882,000	
Estimated Revenues		876,000
Fund Balance		6,000
To close Revenues and Estimated Revenues accounts and transfer the difference to Fund Balance.		
Appropriations	900,000	
Encumbrances		8,000
Expenditures		880,900
Fund Balance		11,100
To close Appropriations, Encumbrances, and Expenditures accounts and transfer the difference to Fund Balance.		

After the closing entries have been posted, an after-closing trial balance of the fund would appear as in Illustration 3–2.

Other forms of closing entries are available and have points in their favor. One of these consists of making a single compound entry to close each of the budgetary and proprietary accounts to be closed, with the net difference between total debits and total credits being transferred to Fund Balance. Thus, Appropriations and Revenues would be debited, and Estimated Revenues, Encumbrances, Expenditures, and Fund Balance would be credited, the last for the balancing amount of $17,100. A third plan consists of closing by the first method, with Operating Clearance substituted for Fund Balance. This would require an additional entry to transfer the balance of the Operating Clearance account to Fund Balance. By still a

Illustration 3–2

TOWN OF LYNN

General Fund
After-Closing Trial Balance
December 31, 1969

	Debit	Credit
Cash	$ 46,000	
Taxes receivable—delinquent	91,900	
Estimated uncollectible taxes—delinquent		$ 15,900
Due from other funds	5,000	
Vouchers payable		28,000
Due to other funds		900
Reserve for encumbrances		8,000
Fund balance		90,100
	$142,900	$142,900

fourth method the 1969 sheets for Estimated Revenues, Revenues, Appropriations, Expenditures, and Encumbrances may merely be removed from the ledger to a file and a direct posting of $17,100 made to the credit of Fund Balance. The exact form of the closing entry or entries is of secondary importance so long as the necessary accounts are put in balance and their net difference transferred to Fund Balance. Use of these various methods is not confined to governmental accounting.

A balance sheet may be prepared from a before-closing trial balance by selection of the balance sheet accounts and making the proper adjustment of the Fund Balance account. The process is simplified if it can be postponed until the after-closing trial balance, which contains only balance sheet accounts, has been prepared. Town of Lynn's balance sheet at December 31, 1969, would appear as in Illustration 3–3.

Illustration 3–3

TOWN OF LYNN

General Fund
Balance Sheet, December 31, 1969

Assets		
Cash		$ 46,000
Taxes receivable—delinquent	$91,900	
Less: Estimated uncollectible taxes—delinquent	15,900	76,000
Due from other funds		5,000
Total Assets		$127,000
Liabilities, Reserve, and Fund Balance		
Liabilities:		
Vouchers payable	$28,000	
Due to other funds	900	
Total liabilities		$ 28,900
Reserve for encumbrances		8,000
Fund balance		90,100
Total Liabilities, Reserve, and Fund Balance		$127,000

Statement of changes in fund balance

A second statement of value in the administration of general funds is a statement of changes in fund balance, comparable to the statement of changes in retained earnings used in management of corporations for profit. Statements of this kind may be in either summary or detailed form. The summary form is based upon the fact that the net change in fund balance during a fiscal period is the result of one or more of four common causes of a proprietary nature, which may be itemized in the statement. The detailed form is in the nature of a comparative summary of both budgetary and proprietary changes which either temporarily or permanently affect the fund balance during the period covered.

The essential difference between the two forms of statement derives from the fact that budgetary entries have no permanent effect upon Fund Balance. Changes which are made in the Fund Balance account when the budget is recorded are canceled when the closing entries are made, as demonstrated in the following entries, the first to record an imaginary budget, the second and third to close the budgetary accounts.

Estimated Revenues	876,000	
Fund Balance	24,000	
Appropriations		900,000
To record budget adopted by legislative body.		
Appropriations	900,000	
Fund Balance		900,000
To close Appropriations account.		
Fund Balance	876,000	
Estimated Revenues		876,000
To close Estimated Revenues account.		

Inspection of the changes brought about by the second and third entries will reveal that they exactly cancel those made by the first entry.

Some accountants prefer to keep Fund Balance free of the effect of budgetary entries, which they do by substituting Operating Clearance, Budgetary Surplus, or some such other titled account for Fund Balance in the budgetary entries. Unless that is done, during most of a fiscal period the balance of the account is a mixture of estimates and realities. Using one of the substitute accounts in the budgetary entry preserves Fund Balance as a strictly proprietary account.

The four changes most likely to appear in the summary form of Fund Balance statement are as follows:

1. The difference between actual revenues and actual expenditures during the period.
2. Encumbrances recorded but not converted to firm liabilities during the period, and debited to Fund Balance as a reservation of fund surplus.
3. Increases or decreases of reserves established in a prior period or periods.
4. Direct debits or credits to Fund Balance to record correction of prior

period transactions. (Entering such changes in Fund Balance is disapproved by many accountants.)

An example of the summary form of statement, based upon town of Lynn transactions is shown in Illustration 3–4.

Illustration 3–4

TOWN OF LYNN

General Fund

Statement of Changes in Fund Balance for 1969

Fund balance, December 31, 1968		$97,000
Add: Excess of revenues over expenditures:		
Revenues	$882,000	
Expenditures	880,900	
Excess		1,100
		$98,100
Deduct:		
Encumbrances outstanding at end of year		8,000
Fund Balance, December 31, 1969		$90,100

Some administrators might prefer to list expenditures and outstanding encumbrances in the same section with the following results:

Deduct: Excess of expenditures and encumbrances over revenues:		
Expenditures	$880,900	
Encumbrances	8,000	
Total expenditures and encumbrances	$888,900	
Revenues	882,000	
Excess of expenditures and encumbrances over revenues		$6,900

Subtracting the $6,900 from the year's beginning balance would result in an ending balance of $90,100. The two forms are equally acceptable.

The detailed form of Fund Balance change statement includes both the proprietary changes used above and the budgetary, self-canceling, changes previously discussed. A sample of the detailed form is shown in Illustration 3–5.

Chronologically the change reported in the last section of Illustration 3–5 occurred first. That was when the budgetary entry was made. The other two occurred in closing. Estimated Revenues was debited to Fund Balance in the amount of $876,000 but Revenues was credited to it for $882,000. Expenditures and the $8,000 of unobligated encumbrances were debited to the Fund Balance for a total of $888,900 but the Appropriations account balance was credited to it for $900,000.

No set rules can be given in a limited space for determining what information should be shown in a fund balance statement or exactly how it should be arranged. The primary requirement is to explain why Fund Balance showed one balance at the beginning of a period and another at

Illustration 3–5

TOWN OF LYNN

General Fund
Statement of Changes in Fund Balance for 1969

Fund Balance, December 31, 1968		$ 97,000
Add: Excess of actual over estimated revenues:		
Actual revenues	$882,000	
Estimated revenues	876,000	
Excess		6,000
Add: Excess of appropriations over expenditures and encumbrances:		
Appropriations	$900,000	
Expenditures and encumbrances*	888,900	
Excess		11,100
Total beginning balance and additions		$114,100
Deduct: Excess of appropriations over estimated revenues:		
Appropriations	$900,000	
Estimated revenues	876,000	
Excess		24,000
Fund Balance, December 31, 1969		$ 90,100

* This is the $8,000 of encumbrances not yet converted to expenditures.

the end—from $97,000 to $90,100 in the town of Lynn problem. Had there been direct debits or credits to the account, for adjustment or correction of prior years' transactions, or for increase or decrease of one or more reserves, those transactions would be reported in the addition or deduction section as required.

Interim balance sheets

The general fund balance sheet (Illustration 3–3) set forth financial condition at the end of a fiscal period. It may be desired to ascertain and

Illustration 3–6

TOWN OF LYNN

General Fund Trial Balance, August 31, 1969

	Debit	*Credit*
Cash	$ 45,200	
Due from other funds	1,600	
Taxes receivable—current	256,000	
Estimated uncollectible taxes—current		$ 12,000
Taxes receivable—delinquent	52,000	
Estimated uncollectible taxes—delinquent		6,000
Vouchers payable		76,000
Due to other funds		8,400
Estimated revenues	560,000	
Revenues		481,200
Appropriations		600,000
Encumbrances	100,000	
Reserve for encumbrances		100,000
Expenditures	312,800	
Fund balance		44,000
	$1,327,600	$1,327,600

exhibit financial condition at some date during the period by preparation of an interim balance sheet. The purpose of an interim balance sheet is to give a basis for judging the fund's financial ability to meet requirements for the remainder of the fiscal period. It would provide a comparison between the sum of actual and potential assets and the sum of actual and potential liabilities. Such a statement would include both proprietary and budgetary accounts as they stand at the date of preparation. To illustrate an interim statement, let it be assumed that town of Lynn has the trial balance shown in Illustration 3–6 at an intermediate date.

A balance sheet for the town of Lynn general fund at August 31, 1969, including both proprietary and budgetary accounts, would appear as shown in Illustration 3–7.

Illustration 3–7

TOWN OF LYNN

General Fund
Balance Sheet, August 31, 1969

Assets and Resources

Cash			$ 45,200
Due from other funds			1,600
Taxes receivable—current		$256,000	
Less: Estimated uncollectible taxes—current		12,000	244,000
Taxes receivable—delinquent		$ 52,000	
Less: Estimated uncollectible taxes—delinquent		6,000	46,000
Estimated revenues		$560,000	
Less: Revenues		481,200	78,800
Total Assets and Resources			$415,600

Liabilities, Appropriations, Reserves, and Fund Balance

Liabilities:			
Vouchers payable			$ 76,000
Due to other funds			8,400
Total liabilities			$ 84,400
Appropriations		$600,000	
Less: Expenditures	$312,800		
Encumbrances	100,000	412,800	187,200
Reserve for encumbrances			100,000
Fund balance			44,000
Total Liabilities, Appropriations, Reserves, and Fund Balance			$415,600

Meaning of fund balance

It may have been noted that the Fund Balance account of the general fund is markedly different from the Retained Earnings account of private corporations. The latter account, under conservative practices, records the difference between net earnings from operations to date and distributions that have been made from those earnings. On the other hand, Fund Balance may be characterized as largely a balancing figure, the difference

between assets on the one hand and the sum of liabilities and appropriated reserve items on the other. Appropriated reserve items are equity accounts for fund assets which are held for some special purpose or are not available for financing further activities of the fund because they are already committed in a contingent manner. One example of assets held for some special purpose and for which an appropriated reserve should be established is inventory of supplies and materials. Another example is the case of a revenue fund which wishes to record in the fund fixed assets being held for sale. If this is done the assets should be balanced by a reserve of equal amount.

Assets not available for future financing because of previous commitments are those offsetting a reserve for encumbrances. This does not mean that assets are segregated and definitely marked to cover a reserve for encumbrances but rather that the amount of such a reserve must be taken into account in determining the amount of "free" assets. The Fund Balance account signifies the amount of assets that have been made available for fund use but have not to date been used or set aside for some special purpose.

It has been suggested that in the preparation of fund balance statements a further refinement of fund balance might be made by showing what part of the equity it represents is in the form of cash and what part is in the form of noncash assets. If all cash of a general fund is offset by current liabilities, it may mean that the Fund Balance account balance is misleading, in that the assets it represents may not be available for immediate use. Where this fact is significant, it has been suggested the fund balance may be separated into two figures: one called "cash balance" and representing cash actually available for expenditure, and the other referred to as "other, or noncash, fund balance." The importance of this classification is somewhat minimized by the fact that if a fund has assets of sound value, even though they be in noncash form, the fund can proceed with expenditure, obligation, and disbursement through the device of short-term borrowing.

Appropriations or reservations of fund balance

Reservations of portions of a fund balance represent equities in assets that are not presently available for expenditure by the fund or that are expected to be required in meeting obligations that will grow out of encumbrances already assumed. As mentioned previously, a reservation should be made for an inventory of materials and supplies to be carried on the fund balance sheet. The theory supporting this practice seems to be that the amount in this account is so restricted that it is not readily available for financing additional expenditures.

Assuming that a physical inventory of materials and supplies is to be recorded on the general fund books, an acceptable entry for the purpose would be as follows:

Inventory of Materials and Supplies........................	3,000	
Expenditures..................................		3,000

Since the $3,000 worth of supplies have not been used they are not actually expended at this date:

Fund Balance..	3,000	
Reserve for Inventory of Materials and Supplies..........		3,000

If a perpetual inventory is maintained, materials and supplies purchased during the fiscal period should be debited to Inventory of Materials and Supplies. If this method is used, all issues or consumption would be debited to Expenditures and credited to Inventory of Materials and Supplies. Whatever method is employed for recording current purchases, the Reserve for Inventory of Materials and Supplies account should be adjusted to agree with the amount of the physical inventory at the end of each period, by a debit or credit to Expenditures. In the event that the book inventory agrees with the physical inventory but differs from the inventory reserve, the latter should be increased or decreased as required, with an offsetting adjustment to Fund Balance.

Reservation of fund balance in the form of a reserve for encumbrances may be necessary because of purchase orders or other commitments issued in a given fiscal period but not converted to actual obligations before the period end. To explain, if purchase orders totaling $3,000 have been issued but not filled before the end of a fiscal period, a contingent liability exists; failure to provide for meeting this liability out of the current year's funds shifts the burden to the following fiscal period. This can be prevented by closing the Encumbrances account and the Reserve for Encumbrances account which record the $3,000 commitment (crediting the former and debiting the latter), and following this with an entry debiting Fund Balance and crediting Reserve for Encumbrances, each for $3,000. The net effect of these two entries may be obtained in one entry debiting Fund Balance and crediting Encumbrances, each for $3,000.

Another device, not entirely unlike reserving fund balance, is the indeterminate appropriation. A legislative body may see fit to authorize in one period an expenditure that cannot be accomplished until a later period. The amount of appropriation necessary to cover the future expenditure may be left in the Appropriations account at the end of the year and shown in the balance sheet as an equity with some such title as Unencumbered Appropriations. Or the amount may be formally transferred to an account with that caption.

Other treatments of unobligated encumbrances

The foregoing paragraph discusses one method of accounting for outstanding commitments or encumbrances at the end of a fiscal period. Two others are available and are sometimes used, as shown below:

1. The Encumbrances account and the Reserve for Encumbrances account may be left on the books with the balances shown by them at the end of the fiscal period. This procedure retains a record of the encumbrances but provides no means for financing them or for including their effect in the fund balance sheet, as a reduction of fund balance.

2. The Encumbrances account and the Reserve for Encumbrances account may be closed by crediting the former and debiting the latter. This procedure not only keeps the commitments out of the fund balance sheet but also removes the record from the ledger. It can be justified only if orders not filled at the end of a period are actually canceled.

The question arises as to procedures which may be followed in the subsequent fiscal period if an appropriation of fund balance has been made to cover the commitment:

1. The expenditure, when made, could be debited to the Reserve for Encumbrances, instead of to Expenditures, in an entry such as the following:

Reserve for Encumbrances..................................	3,000	
Vouchers Payable..................................		3,000
To record liability for purchase orders issued in prior periods.		

2. The expenditure, when made, could be debited to some such account as Expenditures Chargeable to Reserve for Encumbrances, to differentiate this particular expenditure from those authorized in the current year's budget. The entry under this method would be as follows:

Expenditures Chargeable to Reserve for Encumbrances*.........	3,000	
Vouchers Payable..................................		3,000
To record liability for purchase orders issued in prior periods.		

* Or to "Prior Year's Appropriations."

Had the required expenditure exceeded the amount encumbered for it, at the end of the period the expenditure would have been closed to Reserve for Encumbrances ($3,000) and to Fund Balance for the excess. A similar procedure would be applicable for an excess of reserve over expenditure, except that the excess would have been credited to Fund Balance.

A third suggestion for action in the new period has been made to the effect that the encumbrance may be reestablished in the new period by debiting Encumbrances and crediting Appropriations (much as though the previous period had not ended); from there on, the transaction may be handled in the same manner as a current-year order. A prerequisite to this entry would be a formal ordinance in the new year by the legislative body, to give its approval to the commitments incurred in the preceding year.

If the purchase order or other final evidence of obligation is less than the amount reserved for it, the excess of reservation should be released for other use in the following manner:

Reserve for Encumbrances	300	
Fund Balance		300
To adjust for order encumbered in amount of $3,000, final cost of which order was $2,700.		

If fund balance is not appropriated for orders or contracts outstanding at the end of a fiscal year, presumably they were canceled, or provision was made for such a situation when the subsequent year's budget was enacted. If the Encumbrances account and the Reserve for Encumbrances account were carried over from the preceding period, no further action is necessary. When the order is filled, it will be recorded as an expenditure of the current year. If the encumbrance and related reserve were written off the books, they should be restored at the beginning of the new period. From that point the transaction is treated as a current activity.

Miscellaneous receipts

General funds of considerable size are very likely to experience, from time to time, irregular receipts of money from miscellaneous sources not logically related to their regular functions. Examples of the kinds of receipts referred to here are refunds of amounts spent in prior years, proceeds from sale of incidental assets, random income, and collection of taxes previously written off.

Transactions of those kinds, being of irregular nature, do not fit well into standard revenue classifications, such as those described in Chapter 4. Some items of this category may be classified as "other revenue," but others may not, except with some distortion. If infrequent in occurrence and small in amount, they may, by compromise, be credited to Fund Balance. Some authorities recommend a supplementary account captioned Surplus Receipts for these miscellaneous amounts.

Collections of taxes that had been written off can well be recorded without using either a revenue account or the Fund Balance account. One possibility is to reverse the entry that wrote off the taxes and then record the transaction as a routine collection, as in the following pair of entries:

Taxes Receivable	200	
Estimated Uncollectible Taxes		200
To reverse the entry that wrote off taxes as uncollectible.		
Cash	200	
Taxes Receivable		200
To record collection of taxes previously written off.		

Since Taxes Receivable is a controlling account, both of the above entries will be posted to the individual tax record of the taxpayer who made payment.

It is believed that the same end could be accomplished by compressing into one the two entries illustrated above, the resulting entry being as follows:

Cash	200	
Estimated Uncollectible Taxes		200

Whatever method is used for recording collection of taxes previously written off, utmost care should be exercised to assure that the taxpayer receives credit in his subsidiary account. This is true because unpaid taxes may constitute a cloud upon title to property. Collection of taxes previously written off is sometimes attended by a number of complications. These will be discussed, with some repetition, in Chapter 15.

Other unusual features of general fund accounting

In addition to possessing the fundamental difference between governmental and commercial accounting, general fund accounting is different in two other ways:

1. Although fixed assets are purchased by general fund expenditures, they are not included among general fund assets. In the first place, fixed assets are not likely to be owned for exclusive use in general fund operations. They make no contribution to general fund revenue, and their depreciation is not a charge to general fund expenditures. In the second place, fixed assets provide no security for payment of general fund liabilities and therefore should not influence general fund equities. If, for any unusual reason, an amount of fixed assets is carried in general fund accounts, their book value should be balanced by an appropriated reserve account, thereby keeping their effect out of the Fund Balance account.

2. Long-term liabilities, although eventually to be liquidated through general fund appropriations, are not carried in the general fund records. In an earlier part of this chapter, it was pointed out that financial operations of a general fund are conducted more or less on a year-to-year basis, with annual renewal of its assets from tax levies and other sources. If long-term liabilities were to be paid by the general fund they would be liabilities of the fund in the year in which assets for payment are provided. This general rule has lost practically all of its significance. Debt service funds are now recommended for use in paying long-term debts not payable by intragovernmental service or enterprise funds.

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QUESTIONS

1. In your opinion is the balance sheet of a municipal general fund a reliable indicator of the municipality's financial condition? Explain.
2. In the balance sheet of an enterprise for profit it is important to classify assets and liabilities as current or long-term. Is this true for the balance sheet of a governmental unit general fund? Explain.
3. A certain governmental unit is so small that it needs only one fund. It owns a quantity of fixed property, of which it wishes to maintain a formal record without establishing a general fixed assets group. How can the record of this fixed property be incorporated in the unit's general fund without distorting the fund's real balance?
4. Explain the meaning or significance of the fund balance in a balance sheet.
5. In a certain governmental unit \$10,000 par value of serial bonds are to be paid by the general fund on February 1, 1969. Should this liability appear in the governmental unit's balance sheet at December 31, 1968, if
   a) There had been an appropriation for the payment in the 1968 budget?
   b) An appropriation for payment of the debt was included in the 1969 budget?

   (This question assumes a debt service fund is not maintained for payment of bonds.)
6. At December 31, 1969, a governmental unit had outstanding a requisition for repair service in the amount of \$361. Before the annual audit for 1969 was made the service had been received at an actual cost of \$385. At what amount should the auditor include this encumbrance in the total of encumbrances to be shown in the December 31, 1969, balance sheet?
7. Is it sound policy for a governmental unit to make a practice of carrying a large fund balance in its general fund from one year to another? Explain.
8. What was formerly called Reserve for Uncollectible Taxes is now called Estimated Uncollectible Taxes. Do you think some similar change should be made in Reserve for Encumbrances? Defend your answer.
9. In a statement of changes in fund balances the following differences between actual compared with estimated revenue occurred during the year:

Revenues	\$ 4,000 deficiency
Expenditures	10,000 deficiency
Reserve for encumbrances	6,000 deficiency
Reserve for supplies inventory	3,000 excess

   What was the excess or deficiency of actual fund balance compared with estimated or expected, fund balance at the end of the year?
10. A governmental unit maintains a perpetual inventory of materials and supplies, with an average balance of \$20,000. It is expected that the inventory will be about normal at December 31, 1968. Estimated usage of materials and supplies during 1969 is \$139,000. How much should be appropriated for materials and supplies purchases in the 1969 budget? Explain.

11. Some contend that the fund balance account at the end of a year should represent only the excess of cash over total liabilities and that the governmental unit's equity in noncash assets should be accounted for in some sort of a reserve account. What is your opinion of the validity of this position?
12. It is said that while a governmental fund has legal existence in perpetuity, from a financial and operating point of view it exists on a year-to-year or biennium-to-biennium basis. Explain.
13. The city of Holton fiscal year ends on September 30. Near the end of September, 1968, a purchase order for $2,200 was issued. Delivery was received on October 11 of the same year. Demonstrate by illustrative journal entries the accounting which should have been made for the purchase under each assumption stated below. Where necessary, also make the September 30 entries.
    a) The encumbrance entry was reversed at September 30 and a new one made in October.
    b) A reservation of fund balance was made to cover the estimated amount of the purchase. When the purchase was recorded it was differentiated from fiscal 1969 transactions.
    c) A reservation of fund balance was made at September 30. The purchase order was confirmed by a special appropriation in October.
14. At the end of a fiscal period certain accounts of a general fund had the following balances: Appropriations, $526,000; Estimated Revenues, $523,000; Expenditures, $514,000; Revenues, $521,000. Appropriations included an authorization for an $8,400 expenditure which could not be consummated until the following year and no purchase order had been issued on it. Make what you think to be an appropriate closing entry or closing entries for the above information, including all accounts.

PROBLEMS

1. Below is given an alphabetical list of accounts of a general fund, with a balance for each one except Fund Balance. You are required to identify the nature of each account (whether debit or credit) by preparing a trial balance with accounts listed as in this problem and using the balances shown, except for the missing balance. You are required to do the following things:
    a) Arrange the following account titles and balances into a trial balance. All account balances except those of Cash in Bank and Fund Balance are normal. The balance of Fund Balance account will have to be determined. Accounts may be left in their present order.
    b) Make a proper closing entry, assuming December 31, 1969, was the end of a fiscal year.
    c) Assume that the Fund Balance account had a balance of $13,000 in the list of accounts, that all other balances were the same as listed, and that only normal entries had been made in the account during 1969. What was the balance of the account after closing at December 31, 1968?

TOWN OF HAYESVILLE
General Fund
December 31, 1969

Accounts payable	$ 15,100
Accounts receivable	2,200
Allotments	502,200
Bond principal and interest payable*	20,700
Cash on hand	5,200
Cash in bank (overdraft)	400
Commitments	17,000
Due to electric fund	500
Equipment held for sale (appraised value)	200
Estimated revenues	460,300
Estimated uncollected taxes receivable	21,600
Expenditures	499,100
Expenditures—prior year's appropriations	3,200
Fund balance	?
Investments—U.S. Treasury bills	21,200
Judgment payable	3,000
Materials and supplies inventory	18,500
Prepaid taxes—property owners	1,600
Reserve for commitments	17,000
Reserve for commitments—prior year	3,200
Reserve for materials and supplies inventory	18,500
Revenues	462,900
Taxes receivable	51,100
Unallotted appropriations	8,400
Unpaid salaries and wages	6,700
Withholding taxes payable	2,300

* The National Committee on Governmental Accounting now recommends that long-term debts, other than those of an intragovernmental service or enterprise fund, be paid by a debt service fund.

2. On page 50 is an illustration of closing entries for the town of Lynn general fund at December 31, 1969. To illustrate the result of using Operating Clearance to keep the effect of budgetary debits and credits from getting into Fund Balance you are required to do the following things:
   a) Make the entry which was made to record the fund's budget for the year 1969, using Operating Clearance to balance the difference between estimated revenues and appropriations.
   b) Make the closing entries for December 31, 1969, to close all the accounts which needed to be closed at the end of 1969. Give brief explanations.

3. At September 30, 1968, the Fund Balance account of town of X general fund showed a credit balance of $31,000 after closing entries.

   The entry made October 1, 1968, to record the fiscal year 1969 budget was:

Estimated Revenues	789,400	
Appropriations		771,800
Fund Balance		17,600
To record budget for fiscal year ending September 30, 1969.		

There were no amendments of the budget during fiscal 1969.

The September 30, 1969, closing entry was as follows:

Revenues	791,900	
Appropriations	771,800	
Fund Balance	13,500	
Expenditures		769,300
Estimated Revenues		789,400
Encumbrances		18,500
To close temporary accounts for fiscal 1969, and transfer their net balance to Fund Balance account.		

During fiscal 1969 the fund received $45 cash as a refund on an expenditure of a prior year. The amount was credited to Fund Balance.

a) You are required to prepare a detailed statement of changes in town of X general fund balance during the fiscal year 1969, using the information detailed above.

b) What difference would it make in the statement if a Reserve for Materials and Supplies Inventory had been established from Fund Balance, the amount being $8,000? In which section of your statement would the $8,000 be shown and what would be the amount of Fund Balance at September 30, 1969?

4. At December 31, 1968, the village of Hopewell current fund had the following after-closing trial balance:

	Debit	*Credit*
Cash on hand and in bank	$ 6,320	
Due from school corporation	1,980	
Taxes receivable	31,666	
Estimated uncollectible taxes		$12,407
Interest and penalties receivable	1,884	
Estimated uncollectible interest and penalties		739
Due to water fund		108
Vouchers payable		3,615
Accrued expenses		433
Fund balance		24,548
	$41,850	$41,850

During 1969 the following transactions, stated in summary form, took place:

(1) The village board approved a budget which provided for revenues of $713,000 and expenditures of $716,000.

(2) The revenue budget for 1969 included an estimate of $100,500 from miscellaneous revenue. The remainder of estimated revenue was to be provided by a property tax levy that, with shrinkage of 2 percent on account of uncollectibles, would yield the required amount. The required amount was levied.

(3) Total commitments for commodities and services, except personal services, amounted to $652,300.

(4) Additional interest and penalties charged on past due taxes during the year totaled $3,864, of which one third was deemed uncollectible.

(5) Personal services of $59,040 were vouchered and paid during 1969. (May be entered as one transaction—a cash payment.)

(6) Supplies which had cost $1,419 were transferred to the school corporation during 1969.

(7) Collections during the year were as follows:

Taxes	$618,100
Interest and penalties	2,017
Due from school corporation	2,320
Miscellaneous revenues (not accrued)	101,200

(May be recorded as one compound entry.)

(8) Taxes receivable of $13,600 and interest and penalties of $811 were written off as uncollectible.

(9) $2,801 of this year's tax levy was canceled because of duplications.

(10) Invoices totaling a net amount $641,100, applying to purchases and contracts which had been encumbered at $639,070, were received during the year and vouchered, with which was included the accrued expense at the beginning of the year and the amount due to the water fund.

(11) Vouchers payable totaling $643,840 were paid.

(12) Expenses incurred but not yet recorded at the close of business at the end of the year totaled $516.

You are required to do the following things:

a) Make T accounts and record the balances of village of Hopewell's current fund accounts at December 31, 1968.

b) Record the 1969 transactions. (See next part.)

c) Post to ledger accounts. For parts (*b*) and (*c*) it is permissible, but not required, to post directly from the transactions to the T accounts.

d) Take a trial balance as of December 31, 1969.

e) Make a closing entry or closing entries, including a reservation for outstanding encumbrances.

f) Prepare a balance sheet for December 31, 1969.

g) Prepare a detailed statement of changes in fund balance.

5. At June 30, 1969, city of Greenfield general fund had the trial balance shown below:

	Debit	*Credit*
Accounts payable	$ 456,200	$ 463,100
Allotments		431,200
Cash	484,800	456,200
Encumbrances	347,200	341,500
Estimated revenues—miscellaneous	61,200	
Estimated revenues—taxes	381,500	
Estimated uncollectible interest and penalties	5,700	11,600
Estimated uncollectible taxes	14,600	29,200
Expenditures	429,100	
Expenditures chargeable to reserve for encumbrances	14,300	
Fund balance		32,600
Interest and penalties receivable	32,800	20,100
Reserve for encumbrances	341,500	361,500
Revenues—miscellaneous (cash)		59,300
Revenues—taxes		394,500
Taxes receivable	436,200	395,900
Unallotted appropriations	431,200	439,600
	$3,436,300	$3,436,300

You are required to determine amounts and make journal entries which will show, in summary form, the transactions of the fund during the fiscal year 1969. Give a brief explanation for each entry. You may assume that (*a*) only routine transactions occurred during the year and (*b*) all expenditures were routed through Accounts Payable. At the end of fiscal year 1968 Interest and Penalties totaled $13,900, with an estimate of $5,200 as being uncollectible. Estimated collectible interest and penalties revenue is credited to Revenues—Taxes. Make your entries in the following order: budgetary entry, tax levy, allotment, charging of interest and penalties, issue of purchase orders and contracts, cash collection, reversing of encumbrances, recording of all expenditures, writing off taxes and interest and penalties, and payment of accounts payable. It is important to note that amounts shown for each account are total debits and total credits, including beginning balance, in each account during the year. In some cases, e.g., Allotments, the amount shown happens to be also an ending balance. (1969 levy, $394,100; estimated loss, $12,100.)

6. A new bookkeeper employed by the town of Bentonville began his duties on January 20, 1969, following departure of his predecessor. Records of the town appeared to be in general disorder, as well as mostly fragmentary. He began by selecting the general fund for immediate attention and discovered what appeared to be fairly dependable records of four items as follows, correct for December 31, 1968:

Cash (confirmed from bank statements)	$40,000
Inventory of supplies	10,000
Accounts payable	35,000
Due to water fund	700

Further investigation over a period of time revealed the following additional information about Bentonville's general fund, on or before the end of 1968:

(1) After diligent search and extensive use of adding machines the new bookkeeper arrived at $45,000 as the amount of prior years' taxes uncollected at January 1, 1968, and at $175,000 as the probable amount of the levy for that year.

(2) From adding machine tapes, deposit slips, copies of tax receipts and other similar evidence he recorded as the apparent amounts which had been collected during 1968, $20,000 on prior years' levies and $140,000 on the 1968 levy. Also, he found that some property owners, for federal income tax purposes, had prepaid $4,000 on taxes payable in 1969.

(3) Recognizing that some taxes might have been paid without a careful record having been made, the bookkeeper set up liberal estimates for uncollectible taxes, for December 31, 1968. He provided $15,000 for prior years' taxes and $10,000 for the 1968 levy.

(4) Statements from the central stores fund showed $5,000 due to that fund and other evidence showed $2,000 due from the street fund. Both of these amounts were confirmed by the affected funds.

(5) An inventory of supplies, adjusted back to December 31, 1968, indicated that the list should have totaled about $12,000, except that it included a $300 office machine.

(6) Shortly after the new bookkeeper's arrival an invoice for $180 was received for services rendered for the city in 1968. The order for the services had been encumbered in the amount of $185 at the time of its issue on December 11.

(7) A quantity of supplies with an invoice for $418 was received during January, 1969, shortly before the new bookkeeper's arrival. No formal encumbrance for the purchase order, dated November 30, 1968, had been made but a copy showed a tentative price of $410. No other similar bills were found.

(8) It was found that the town board, in making its 1968 tax levy, had provided for the maturity, on February 1, 1969, of $20,000 of serial bonds, with $2,500 interest due at the same time.
(9) When the bookkeeper showed the town board his preliminary adjusted figures for December 31, 1968, members of the board recognized a number of prior years' tax bills which they considered uncollectible and instructed him to write off an amount that totaled $2,000 before setting up his records for the beginning of 1969.

Using the foregoing information prepare for the town of Bentonville general fund a trial balance which would be acceptable for opening a ledger as of the beginning of business January 2, 1969.

7. The town of New Madison current fund had the following after-closing trial balance at April 30, 1968:

	Debit	*Credit*
Cash		$ 1,860
Taxes receivable—delinquent	$57,400	
Estimated uncollectible taxes—delinquent		18,300
Interest and penalties receivable	2,469	
Estimated uncollectible interest and penalties		1,327
Materials and supplies inventory	15,480	
Vouchers payable		3,440
Withholding taxes payable—employees		4,210
Accrued payroll taxes—employer		1,677
Reserve for materials and supplies inventory		15,480
Reserve for encumbrances		5,431
Fund balance		23,624
	$75,349	$75,349

During the six months ended October 31, 1968, the following transactions, in summary form, occurred:

(1) The budget for fiscal 1969, enacted in the prior fiscal year, was recorded with estimated property tax revenues of $182,000, estimated revenues from other sources $97,000, and appropriations of $270,000. (Record revenues as Estimated Revenues —Property Taxes and Estimated Revenues—Other Sources.)
(2) The town board authorized a temporary loan of $30,000 in the form of a 120-day note payable and the loan was obtained at a discount of 6 percent per annum. (Debit Expenditures for discount.)
(3) Also at its first meeting, the town board enacted a supplemental appropriation to cover commitments assumed from the prior year.
(4) The property tax levy for fiscal 1969 was recorded. Net assessed valuation of taxable property for the year was $3,800,000 and the tax rate was $5.10 per hundred. It was estimated that 4 percent of the levy would be uncollectible. Classify this tax levy as current.
(5) Purchase orders, contracts, etc., in the amount of $93,150 were issued to vendors and others.
(6) $93,700 of current taxes, $24,100 of delinquent taxes, and interest and penalties of $1,016 were collected. Due to delinquencies in payment of the first installment of taxes, additional penalties of $1,413 were levied (credit Revenues—Property Taxes). Journalize in two entries.
(7) Total payroll during the first six months was $46,209. Of that amount, $1,892 was withheld for employees' FICA tax liability, $6,331 for employees' federal income tax liability, $1,942 for state taxes and the balance was paid in cash. (Do not voucher payment to employees.)
(8) Revenues from sources other than taxes were collected in the amount of $31,050.
(9) Amounts due the Internal Revenue Service and State Revenue Department were vouchered as follows:

(*a*) $1,741 of FICA taxes on employees.
(*b*) $1,503 of employees' state taxes.
(*c*) $4,889 of employees' federal income tax withholding.
(*d*) All withholdings and accrued payroll taxes unpaid at April 30, 1968.
(*e*) Employer's share of payroll taxes for this half-year, $2,576. (Not previously recorded.)

(For present purposes, amount due state and federal governments may be vouchered in one amount.)

(10) Purchase orders and contracts encumbered in the amount of $86,070 were filled at a net cost of $86,491, which was vouchered. The town does not operate Materials and Supplies Inventory as a perpetual inventory account.
(11) $97,146 cash was paid on vouchers payable and credit for cash discount earned was $803. (Credit Expenditures.)
(12) By direction of the town board, the town's depository charged the temporary loan to the town's bank balance.

During the second six months the following transactions occurred:

(13) Due to a change in a state law, effective July 1, it appeared the town would receive $10,000 less state revenue than was estimated. An entry was made to correct the revenue estimate but no reduction of appropriations was made.
(14) Purchase orders and other commitment documents in the amount of $95,404 were issued during the latter six months.
(15) Property taxes of $530 and interest and penalties receivable of $109, which had been written off in prior years, were collected. Twenty-one dollars of additional interest which had accrued since the write-off was collected at the same time. (Credit Revenues—Property Taxes for additional interest.)
(16) Personnel costs, excluding the employer's share of the FICA tax, totaled $31,817 for the second six months. Withholdings amounted to $5,388 and the balance was paid in cash. (Do not voucher.)
(17) The county board of review discovered unassessed properties of a total taxable value of $51,000 located within the town boundaries. The owners of these properties were charged with taxes at the town rate of $2.00 per hundred dollars assessed value.
(18) Current taxes of $71,310, delinquent taxes of $9,201, interest and penalties of $1,032 and miscellaneous revenue of $54,212 were collected. No part of any of these amounts was included in any other transaction.
(19) Interest and penalties, estimated to be 30 percent uncollectible, were charged in the amount of $2,100.
(20) All unpaid current year's taxes having become delinquent after the first Monday in November were transferred to that classification.
(21) Amounts vouchered to the Internal Revenue Service during the second half-year were the following:
(*a*) All withholding taxes which had not been remitted at October 31.
(*b*) $4,036 of deductions withheld since October 31.
(*c*) $914 for the employer's share of FICA taxes. This tax had not previously been recorded.
(22) Invoices and bills for goods and service which had been encumbered at $96,218 were received in the amount of $95,413 and were vouchered.
(23) Personal property taxes of $3,994 and interest and penalties of $418 were written off because of inability to locate the property owners.
(24) A physical inventory of materials and supplies at April 30, 1969, showed a total of $17,321.
(25) A special project authorized in the fiscal 1969 budget at an estimated cost of $8,307 was neither started nor encumbered during the year. The town board directed that it be formally recorded as an unencumbered appropriation. (List after Reserves in balance sheet.)
(26) Payments made on vouchers during the second half-year totaled $99,842.
(27) Analysis of payroll records revealed that the town's unrecorded payroll tax amounted to $763 at April 30, 1969.

You are required to do the following things:

a) Open ledger accounts for the trial balance at April 30, 1968.

b) Journalize and post transactions for the first six months of fiscal 1969.

c) Take a trial balance for October 31, 1968.

d) Prepare an interim balance sheet for October 31, 1968.

e) Journalize and post transactions for the second half of fiscal 1969.

f) Journalize closing entries on a basis consistent with that of the previous year. (This alludes to the handling of outstanding encumbrances.) Post the closing entries.

g) Prepare a balance sheet for April 30, 1969.

8. Information concerning the accounting records of the city of Bruceville at December 31, 1969, is presented below:

CITY OF BRUCEVILLE
General Fund
Partial General Ledger Trial Balance (Before Adjustments)
December 31, 1969

	Debit	*Credit*
Supplies inventory (physical inventory 12/31/69)	$10.000	
Estimated revenue—miscellaneous	20,000	
Estimated revenue—taxes	95,000	
Appropriations		$112,000
Revenue—miscellaneous		19,900
Revenue—taxes		95,500
Encumbrances	20,000	
Expenditures	80.000	
Expenditures chargeable against prior year's encumbrances	7,100	
Reserve for encumbrances (balance 12/31/68, $7,000)		27,000
Reserve for supplies inventory		12,000
Fund balance		3,300
Surplus receipts		1,700

Supplementary information:

(1) The unencumbered balance of the fire department's appropriation at December 31, 1969 was $10,025. As legally authorized, the City Council voted to carry over to 1970 this balance in the rounded amount of $10,000. The action of the City Council has not been recorded in the accounts.

(2) Unfilled purchase orders for the general fund at December 31, 1969, totaled $20,000.

(3) Fund balance of $3,300 is the amount of the balance at December 31, 1968, modified by the 1969 budgetary entries.

Required:

a) Prepare an adjusting entry or adjusting entries required at December 31, 1969, for general fund accounts.

b) Prepare a closing entry or closing entries at December 31, 1969, for general fund accounts.

c) Prepare a detailed statement of changes in fund balance for 1969. Note

that $10,000 of appropriations was carried over to the following year.
(AICPA, adapted)

CONTINUOUS PROBLEM

3–L. Presented below are a number of transactions of the general fund of the city of Bingham which occurred during the first six months of the year for which the budget given in Problem 2–L was prepared.

You are required to:

a) Record in the general journal the transactions given below. Make any computations to the nearest dollar. For each entry affecting budgetary accounts show subsidiary account titles and amounts as well as general ledger control account titles and amounts.

b) Post each entry to the general ledger accounts. Do not open subsidiary ledger accounts until instructed to do so in a subsequent "L" problem.

General fund transactions during the first six months of the year:

(1) A general tax levy in the amount of $2,413,265 was made. It is estimated that 2 percent of the tax will be uncollectible.

(2) Tax anticipation notes in the amount of $250,000 were issued.

(3) Purchase orders, contracts, and other commitment documents were issued against appropriations in the following amounts:

	P.O.#	*Amount*
General government:		
Central administration	49–67	$ 43,000
Finance	94–96	18,600
Personnel	35–48	5,400
Public safety:		
Police	108–118	18,750
Fire	97–107	109,250
Public works	16–34	342,000
Health	68–71	78,000
Public welfare	82–93	103,000
Recreation	72–81	133,000
Miscellaneous	1–15	16,000
Total		$867,000

(4) The general fund collected the following in cash: delinquent taxes, $212,000; interest and penalties receivable on taxes, $10,720; licenses and permits $68,000; fines and forfeits, $53,000; charges for services, $4,500; and miscellaneous, $7,000.

(5) A petty cash fund was established for general operating purposes in the amount of $6,000.

(6) General fund payrolls totaled $833,000. Of that amount $124,950 was withheld for employees' income taxes, and $33,320 was withheld for employees' FICA tax liability; the balance was paid in cash. The encumbrances system is not used for payrolls. The payrolls were for the following departments:

General government:	
City council and clerk	$ 21,110
Central administration	29,346
Municipal court and attorney	32,450
Finance	65,015
Personnel	8,312

Public safety:	
Police	185,403
Fire	170,728
Building safety	35,190
Animal pound	5,250
Traffic engineering	41,200
Public works	111,732
Health	12,066
Public welfare	23,653
Recreation	91,545
Total	$833,000

(7) The liability for the city's share of FICA taxes, $33,320, was recorded. The amount was budgeted as a part of the Contributions appropriation.

(8) Invoices for some of the services and supplies ordered in transaction (3) were received and approved for payment; departments affected are shown below:

	P.O.#	*Actual*	*Estimated*
General government:			
Central administration	50–64	$ 38,900	$ 40,500
Finance	94–96	20,100	18,600
Personnel	35–46	5,300	5,000
Public safety:			
Police	109–113	10,000	8,350
Fire	97–104	104,375	100,150
Public works	16–27	300,000	298,500
Health	68–71	77,700	78,000
Public welfare	82–91	98,100	97,800
Recreation	72–80	122,125	125,000
Miscellaneous	4–15	12,400	12,000
Totals		$789,000	$783,900

(9) Delinquent taxes receivable in the amount of $11,683 were written off as uncollectible. Interest and penalties accrued on these taxes amounted to $584; this was also written off.

(10) Invoices for all items encumbered in the prior year were received and approved for payment in the amount of $14,180. (In addition to recording the transaction, also close the Expenditures—Prior Year account and the Reserve for Encumbrances—Prior Year to Fund Balance at this time.)

(11) Collections of the first installment of current year's taxes totaled $1,183,467.

(12) Payments on general fund vouchers amounted to $887,000.

(13) Collections on delinquent taxes written off in a prior year amounted to $438. Interest and penalties collected on these taxes was $44 ($30 of this had been accrued at the time the accounts were written off).

(14) The general fund vouchered its required contributions to the Employees' Pension Fund, $49,980; its liability for employees' income taxes withheld; the total amount of FICA tax liability; and the amount due other funds on July 1. Checks were drawn for all these vouchers.

(15) In view of current information, the city council revised the budget for the current year as shown below:

General Fund	*Budget Adjustments Inc. (Dec.)*
Estimated revenues:	
Taxes	...
Licenses and permits	$ 3,000
Fines and forfeits	4,000
Intergovernmental revenue	(21,000)
Charges for services	...
Miscellaneous revenue	5,000

Appropriations:	
General government:	
City council and clerk	$ 2,500
Central administration	4,200
Municipal court and attorney	4,800
Finance	(3,750)
Personnel	1,750
Public Safety:	
Police	$ (4,000)
Fire	(4,000)
Building safety	1,500
Animal pound	2,800
Traffic engineering	(8,800)
Public works	...
Health	...
Public welfare	$ 14,000
Recreation	...
Contributions	(8,000)
Miscellaneous	(3,000)

Chapter 4

General Funds: Revenue Accounting

As in commercial accounting, so in governmental accounting the determination of what constitutes revenue is a matter of some difficulty. A widely accepted standard for identification of governmental revenue is a definition which describes revenue as additions to assets which do not increase any liability, do not represent the recovery of an expenditure or the cancellation of any liability without a corresponding increase in another liability or decrease in assets, or do not represent receipt of a capital contribution, as by intradepartmental service or enterprise funds. In practice, there are occasional transactions bearing close resemblance to revenue as described above but not fully complying with its requirements. The prevailing methods of accounting for these semirevenue transactions were discussed in the preceding chapter.

Functions of general fund revenue accounting

The primary functions of general fund detailed revenue accounting are as follows:

1. To provide means for determining whether all revenue which should have been received has, in fact, been received.
2. To furnish information for preparing various kinds of financial statements.
3. To implement budgeting and planning for the future by giving necessary information about sources of revenue which have been utilized and the amount obtained from each source. Revenue information is greatly enhanced in value if it conforms to standards and practices followed generally in the field of governmental accounting. Of special importance is adherence to prevailing classifications, such as those recommended by the National Committee on Governmental Accounting.

Three major influences prevent a complete standardization of revenue classification. One of these is honest difference of opinion; the nature of some revenue transactions is such that they might easily fit into two or more classifications. A second influence is lack of information; it is not

possible to describe all revenue subclasses with such clarity that their meaning will be unquestionably clear to all readers. The third influence is difference in variety and volume of revenue transactions; variations of those kinds lead to many different selections and combinations of titles, each designed best to fit requirements of the governmental unit for which it was established. Development of informative and dependable revenue classifications is promoted in the main by two factors. One of these is the existence of well-prepared classification manuals, and the other is free and continuing exchange of information between governmental accountants.

The primary classification of governmental revenue is by source. However, within a given primary classification, two or more secondary classes may be desirable for better and more significant description of the revenue. Thus, under the primary classification Intergovernmental Revenue, it may be necessary to have a secondary class for Federal Grants and another for State Grants, each of which in turn may have subclasses.

The most authoritative classification of governmental revenue is that approved by the National Committee on Governmental Accounting for a large municipality. However, with deletions and additions it is adaptable to smaller units of governments and states. The classification provides principally for revenues of general, special revenue, capital projects, and debt service funds. The six *source* classes recommended by the committee are:

Taxes	Charges for services
Licenses and permits	Fines and forfeits
Intergovernmental revenue	Miscellaneous revenue

The classification does not provide for revenue transactions of utility or other enterprise funds, they being of a rather special nature and variety.

The sixfold classification applies to revenues of *funds*, rather than of *governmental units*. Some transactions represent revenue for a fund but not for the governmental unit; some represent revenue for a governmental unit but not for a fund. A capital projects fund sells bonds but does not pay them at maturity. The proceeds are revenue to the capital projects fund but not to the governmental unit, because another of its funds will have to pay the liability. Assessments against property owners by special assessment funds are not revenue to the assessing fund because the money must be paid out for the property owner's benefit. The assessments are revenue for the governmental unit because it acquires public improvements and no other fund has to pay for them. These concepts will become clearer with the study of capital projects and special assessment funds.

Referring again to the sixfold classification, it is probable that many general funds require all of the six source classes, and even more, but some other kinds of funds might need as few as one. Each of the six classes will be discussed in detail in the sections immediately following.

Taxes

Taxes are of special importance because (1) they provide a very large portion of the revenue of governmental units on all levels, and (2) they are compulsory contributions to the cost of government, whether the affected taxpayer approves or disapproves of the levy.

Ad valorem (based on value) property taxes are a mainstay of financing for most units of local government, but are omitted from the financial plans of most states and by the federal government. Some property taxes are levied on a basis other than property *values*, one illustration being the tax on some kinds of financial institutions in relation to their deposits at a specified date. Some other kinds of taxes are sales taxes, net income taxes, gross receipts taxes, death and gift taxes, and interest and penalties on delinquent taxes. Including the last-named item as a tax is not based on logic. Interest is now classified as Other Revenue and penalties qualify as revenue from Fines and Forfeits. Forcing this sort of revenue into the Taxes classification is defended as a timesaving device, because accounting for interest and penalties on taxes is closely connected with accounting for the related taxes.

Ad valorem taxes lend themselves to use of the accrual basis of accounting. This is true because both values and rates must be determined in advance of the period in which the resulting taxes are to be collected. For that reason, the exact liability of each individual taxpayer is ascertainable at the beginning of each collection period. This permits accrual of charges against the taxpayer.

Even though taxes become liens upon the underlying property, collections in a given period sometimes fall substantially short of the amount levied. If expenditure commitments are based upon the amount levied but actual collections fall short of anticipations, the result may be a condition of financial stringency for the taxing unit. With these facts in mind, some governmental units record the taxes as charges against property owners but record revenue on the basis of collections. Thus, each year's revenue budget contains two taxes revenue items, described somewhat as Revenue —Current Year's Taxes and Revenue—Prior Years' Taxes. Operations of this procedure may be illustrated as follows (routine accrual and collection of taxes was illustrated in the preceding chapter):

Taxes Receivable	100,000	
Allowance for Uncollectible Taxes		2,000
Reserve for Uncollected Taxes		98,000
To record levy of property taxes in amount of $100,000, with an estimated loss of 2 percent. ($98,000 is the anticipated future revenue.)		
Cash	11,000	
Taxes Receivable		11,000
To record receipt of $11,000 collections of taxes during January. (This is a summary entry for several individual receipts.)		

Reserve for Uncollected Taxes	11,000	
Revenues		11,000
To record revenue realized from taxes in January.		

The foregoing procedures provide advance charging of taxpayers' accounts for amounts owed but defer revenue recognition until collection. At the end of each month, after collections for the month have been recorded, the balance of taxes receivable should equal the sum of "uncollectible" and "uncollected."

Most kinds of taxes outside the nonproperty category do not lend themselves to use of the accrual basis. They are sometimes described as self-assessing, which means that primary responsibility for determination and reporting of the tax liability lies with the taxpayer. The governmental unit has no effective way of determining in advance the amounts of business earnings, sales of goods or services, or net income subject to taxation, so no advance charges may be made. The nature of nonproperty taxes does not preclude the making of estimates, but charges to individuals based on such income are not feasible even though applicable rates are known well in advance of the tax period.

Since nonproperty taxes are not accrued, it is obvious that receipt of payment and realization of revenue may be recorded simultaneously, as in the following simple entry:

Cash	35,000	
Revenues		35,000
To record collection of sales taxes.		

Credit:
Taxes:
Sales taxes $35,000

Licenses and permits

Licenses and permits include those revenues collected by a governmental unit from individuals or business concerns for various rights or privileges granted by the government. Some licenses and permits are primarily regulatory in nature, with minor consideration to revenue derived; whereas others are not only regulatory but provide large amounts of revenue as well, and some are almost exclusively revenue producers. Licenses and permits may relate to the privilege of carrying on business for a stipulated period, the right to do a certain thing which may affect the public welfare, or the right to use certain public property. Vehicle and alcoholic beverage licenses are found extensively on the state level and serve both regulatory and revenue functions. States make widespread use of professional and occupational taxes for purposes of control. Municipalities make extensive use of licenses and permits to control the activities of their citizens; and from some they derive substantial amounts of revenue. Commonly found among municipal licenses and permits are building permits, vehicle licenses, amusement licenses, business and occupational

licenses, animal licenses, and street and curb permits. Revenue from parking meters, formerly included in this class, has been transferred to Charges for Services in the latest pronouncement of the National Committee on Governmental Accounting.

Regardless of the governmental level or the purpose of a license or permit, the revenue it produces must be accounted for on a cash basis. Applicable rates or schedules of charges for a future period may be established well in advance, and fairly reliable information may be available as to the number of licenses or permits to be issued; but the probable degree of fluctuation in the latter factor is so great as to prevent satisfactory use of the accrual basis. Uncertainty as to volume of licenses or permits likewise creates a problem in determining whether all revenue paid in for rights or privileges has been accounted for by those employees making collections. Comparisons with records of previous years, survey or inspection to locate and identify persons or businesses subject to the license, and the use of prenumbered standard license or permit forms are control practices which minimize failure to collect or to account for amounts collected. All collections from licenses and permits should be reported on a standard form with complete information to facilitate entry in the Cash Receipts Record, of whatever nature, and to assure that a proper audit may be made at any time in the future.

Since revenues from licenses and permits cannot be accrued, the first entry to be made for such revenues will be at the time of collection, in the following form:

Cash	125	
Revenues		125

To record collections of animal licenses for the day.

Credit:
Licenses and permits:
Animal licenses $125

Intergovernmental revenue

Formerly named Revenue from Other Agencies, this classification has been changed in form of organization as well as in name. Internally it has three main divisions: federal, state, and local. Each main division, in turn, has three subdivisions: grants, shared revenues, and payments in lieu of taxes. This provides for recognizing three classes of revenue from each level of government, they being the aforesaid grants, shared revenues, and payments in lieu of taxes. Briefly described the three classes have the following meanings:

1. A grant is a receipt of money not related to any specific revenue of the grantor. Welfare grants illustrate this class.
2. Shared revenue is a receipt of money related to specific revenue collected by the grantor. An example is money received from the federal highway trust fund, derived by it from various automotive vehicle-related taxes.

3. Payments in lieu of taxes are receipts of money from another governmental unit which, while not subject to taxes by the recipient unit, nevertheless agrees to make a contribution for taxes it would have had to pay as a private individual, either real or corporate. An example is a payment by a city in lieu of taxes it would have had to pay on property located outside the city limits.

Some kinds of intergovernmental revenues can well be accounted for on the accrual basis while other kinds cannot. Of the first category an example is grants by state and federal agencies. Ordinarily the amounts of such grants are announced somewhat in advance of their actual distribution, which makes it possible to record the revenue with a debit to Due from State Government or some such title, even to the extent of designating the agency or department from which the grant is forthcoming. Distributions of shared revenues, stating amounts, are frequently announced in advance of the actual disbursements and are obviously adapted to accrual. The announcement of a grant from the federal Department of Health, Education, and Welfare might receive the following formal entry:

Due from Department of Health, Education, and Welfare.......	90,000	
Revenues..		90,000

To record announcement of grant by Department of Health, Education, and Welfare.

Intergovernmental Revenue:
Federal Grants:
Welfare:
Aid to dependent children.............$90,000

Welfare is one of the recommended classes of Federal Grants. For recording a similar transaction on the cash basis, only the account debited title would need to be different.

Charges for services

This classification includes revenue from charges for all activities of a governmental unit, except the operations of utilities, airports, public housing, and other similar semicommercial enterprises. A few of the many revenue items included in this category are court costs; special police service; refuse collection charges; street, sidewalk, and curb repairs; receipts from parking meters; library use fees (not fines); and tuition.

In the next chapter, titled "General Funds: Expenditure Accounting," will be found a classification of general fund expenditures by function, a term to be explained at that time. The grouping of Charges for Services revenue is now correlated with the functional classification of expenditures. For example, one functional group of expenditures is named "General Government," another "Public Safety," and so on. A governmental unit, in connection with providing general government service, collects some revenue, such as court cost charges, recording legal documents, zoning and subdivision fees, and others. Thus, Charges for Services is

divided into functions. Subclasses are provided for the different kinds of revenue related to each function. For illustration the National Committee on Governmental Accounting recommends the following scheme for identifying revenue from the Highways and Streets service:

343 Highways and Streets
- 343.1 Street, sidewalk and curb repairs
- 343.2 Parking meters
- 343.3 Street lighting charges
- 343.4 Bridge and tunnel tolls
- 343.5) Others
- 343.9)

It should be borne in mind that Highways and Streets is primarily an expenditure classification. The scheme described for classifying service charges seeks to correlate revenue from given kinds of service with costs incurred in providing the service. The relationship should be more meaningful after study of the next chapter.

Few kinds of charges for services lend themselves to accounting on the accrual basis. To record collection of parking meter receipts for a day, an entry would show the following information, although doubtless in some special journal form:

Cash	230	
Revenues		230

To record parking meter receipt collections for the day.
Credit:
Charges for services:
Highways and streets:
Parking meters $230

Fines and forfeits

This class of revenue includes fines and penalties for commission of statutory offenses and for neglect of official duty; forfeitures of amounts held as security against loss or damage, or collections from bonds or sureties placed with the government for the same purpose; and penalties of any sort, except those levied on delinquent taxes. If desired, Fines and Forfeits may be the titles of two accounts within this revenue class; or they may be subgroup headings for more detailed breakdowns. Library fines, formerly classified as Charges for Services, have now been included in this group.

Revenue of this classification must be accounted for on the cash basis. In direct contrast with general property taxes, neither rates nor base or volume may be predetermined with any reasonable degree of accuracy for this type of revenue. Because of these uncertainties, and because recording and collection procedures are sometimes lax, it is often difficult to determine whether all amounts paid by transgressors have been accounted for. However, money collected and reported is accounted for in

the usual manner for revenue on a cash basis. Assuming a foreclosure of a surety bond in the amount of $1,500, the following entry would be made:

Cash	1,500	
Revenues		1,500
To record forfeiture of a performance bond.		
Credit:		
Fines and forfeits:		
Forfeits ... $1,500		

As indicated, the amount of the forfeiture would be posted to the Forfeits account in the subsidiary Revenue Ledger.

Miscellaneous revenue[1]

Although the word "miscellaneous" is anathema to accountants, as applied to a variety of kinds of revenue its use is justified. It (1) substitutes for other possible source classes which might have rather slight and infrequent usage and (2) minimizes the need for forcing some kinds of revenue into source classifications in which they do not generically belong. While Miscellaneous Revenue in itself represents a compromise, its existence aids in sharpening the meanings of other source classes. The heterogeneous nature of items served by the title is indicated by the following listing: interest earnings (other than on delinquent taxes); rents and royalties; sales of, and compensation for loss of, fixed assets; contributions from public enterprises (utilities, airports, etc.); escheats (taking of property in default of legally qualified claimants); contributions and donations from private sources; balances from discontinued funds; and "other."

Some items of Miscellaneous Revenue, such as interest earnings on investments, might well be accrued but mostly they will be accounted for on the cash basis, as in the following entry:

Cash	50	
Revenues		50
Receipt of "conscience money" for government property stolen.		
Credit:		
Miscellaneous Revenue:		
Contributions and donations from private sources ... $50		

In concluding the discussion of revenue classification by sources, it is important to note that the foregoing discussion relates to only one of many possible combinations of classes and titles. In all actual cases the selection of classes and titles to be used should conform to the revenue activity of the fund for which the system is being designed.

Other classifications

Even though classification of general fund revenue by source classes and subdivisions of classes is of predominant importance, other groupings

[1] Some governmental units are required by law to include in revenue amounts received from other funds for payment of specific liabilities. An example is money received from another fund for payment of maturing bonds payable. This is not revenue in the true sense.

may prove valuable. For example, in addition to showing classes and subdivisions a governmental unit may desire to identify and group its general fund revenues by the organizational units (street department, city court, city engineer's office, etc.) which collected the revenue. Organizational identification is useful in connection with accounting control (establishing individual responsibility) and for auditing purposes. Organizational classification is accomplished, basically, by recording on each revenue ledger sheet the department responsible for collection of the revenue recorded thereon. It is merely an addition to the system of identifying by source and subclass.

Coding of revenue accounts

Governmental revenue accounts should be coded for the same reasons that income accounts of private enterprises should be coded. Of these reasons, the two most important are to provide systematic information about the relationship of any given account to other accounts in the classification and to facilitate reference to, or recording of, an account without writing out the verbal title. Both of these purposes may be served by a schematic code based upon significant digits. Assuming that revenues are to be classified by source, by major and minor types, and by individual accounts, a four-digit code could be applied. Under this plan the left-hand digit would signify the source, the next digit the major type, the third digit the minor type, and the right-hand digit the individual account.

An illustrative partial specimen of such a code appears below.

CITY OF ALBION
Operating Fund
Chart of Revenue Accounts

- 000 Taxes
  - 010 General Property Taxes
    - 011 Taxes on Real Property
    - 012 Taxes on Personal Property
      - 012.1 Taxes on Tangible Personal Property
      - 012.2 Taxes on Intangible Personal Property
  - 020 Property Taxes on Other than Assessed Valuation
    - 021 Taxes on Privately Owned Public Utility
    - 022 Taxes on Publicly Owned Public Utility
    - 023 All Other
  - 030 Business Taxes
    - (Other classes of taxes follow)
- 100 Licenses and Permits
  - 110 Business Licenses and Permits
    - (Other classes follow)

Under this system of coding, account 012.1 is identified as being in the taxes source class (0); in general property taxes subclass (1); in the personal property taxes category (2); and as being on tangible personal property (.1).

A simple form of coding utilizes a straight numerical system, omitting source classes, but includes major type numbers, such as general property taxes, in the same series with minor classes and individual accounts. Applied to the foregoing information, the chart of accounts would start as follows.

I Taxes
  1. General Property Taxes
  2. Taxes on Real Property
  3. Taxes on Personal Property
  4. Taxes on Tangible Personal Property

In this scheme each source class is inserted at the proper place with a roman numeral designation. The system of arabic numerals continues without interruption through all source classes. This system does not reveal the schematic relationship of titles as does the four digit system.

Other methods of coding revenue accounts may be found in practice.

Ledger accounts for recording revenue

Existence of major and minor subdivisions within each source class of accounts might lead to the inference that two or more sets of subsidiary accounts would be necessary for proper correlation of general and subsidiary ledger revenue accounts. Thus, the licenses and permits source class being divided into business licenses and permits and nonbusiness licenses and permits, it might be thought that a subsidiary ledger account would be established for each of the subclasses. This is possible but not imperative. Subsidiary ledger accounts may be kept only for accounts of the lowest classification and Revenues and Estimated Revenues[2] will be the controlling accounts for all of these.

Each subsidiary ledger account must carry a title or symbol that will include complete identification of the account as to revenue class and major and minor divisions. Totals or summaries by groups will be obtained from all individual accounts bearing the group code or other symbol. To illustrate, let it be assumed that the following partial classification of revenue accounts is found in the revenue ledger of a municipality:

Licenses and Permits
  Business Licenses and Permits
    Alcoholic Beverages
    Health
    Police and Protective
    Corporations in General

Of the above titles, subsidiary ledger accounts may be found for only the last four. However, if a governmental unit desires to use controlling ledger accounts for any class or subclass title, there is no reason of principle to prohibit that being done. If ledger accounts are operated for only the four lowest classes, the total of revenue from licenses and permits

[2] Explained on pages 83–85.

for street use would be determined as the total of revenue from the four underlying classes. Total revenue from licenses and permits would be obtained by totaling the amounts of all detailed revenue accounts bearing the licenses and permits identification. Total revenues as shown by the Revenues controlling account in the general ledger would equal the sum of all revenues recorded in detailed accounts.

Form of revenue ledger account

There is no standard prescribed form for revenue ledger accounts. The widespread use of electronic and mechanical processes for bookkeeping and accounting purposes has brought about a great variety of forms, each adapted to the particular machine with which it is to be used. Whatever the kind of machine used, certain general requirements prevail. The account form should provide for showing at least the following information:

1. Complete heading, including account code.
2. Dates of entries.
3. Explanation or reference.
4. Folio or posting reference column.
5. Amount of debit.
6. Amount of credit.
7. Balance.

Following a general rule of form design, entries should be arranged in the ledger in a manner that will provide essential information in the most convenient form and location, with a minimum of time required for recording.

A simple form of ledger account providing for the information listed above is shown in Illustration 4–1.

Illustration 4–1

COUNTY GENERAL FUND

Revenue Subsidiary Ledger

Class: Fines and Forfeits — Number: 351.1
Subclass: Fines — Title: Court Fines

Date	*Explanation*	*Reference*	*Debit*	*Credit*	*Balance*
1969					
July 1	Budget estimate...........	J 79	$30,000		$30,000
31	Collections for July........	CR 32		$2,500	27,500

It will be noted from the entries in Illustration 4–1 that the subsidiary ledger account has been debited for the amount of the budget estimate. When the entry to record expected revenue for the year was made, part of the detail came to the debit column of the Court Fines account; and in

the same manner, other detailed debits were posted to other subsidiary ledger accounts. In short, the Estimated Revenues account in the General Ledger is a controlling account for the debit columns of all revenue subsidiary ledger accounts. The credit columns of the subsidiary revenue ledger accounts receive entries representing receipts or accruals of revenue, for which events the Revenues general ledger account is credited. Thus, the Revenues account serves as a controlling account for the credit columns of all subsidiary revenue ledger accounts. It will be observed that subsidiary revenue accounts will normally have debit balances representing the amount of estimated revenue which has not been realized up to a given time. Should actual revenue come to exceed estimated revenue, the result would be a credit balance in the subsidiary account. To generalize, balances of revenue subsidiary ledger accounts are normally debit in nature. The subsidiary accounts should be arranged in the ledger in whatever order seems to represent the maximum of convenience for posting and for use in preparation of financial statements and summaries. Other things being equal, the order should conform to the order of listing in the chart of revenue accounts.

Recording estimated revenue

As has been indicated elsewhere, estimates of revenue will be incorporated in the budget document, of which they are an integral part. Recording estimated revenue will be accomplished in the accounting entry or entries made to record the budget, in a general journal or in some other form of record which is fundamentally like a general journal in nature. In the budgetary entry to record estimated revenues, the Estimated Revenues account will be debited for the total amount expected from all sources; and this will be supported by a detailed listing, in some form, showing the estimated amount from each source. If any good reason exists for so doing, the detailed listings may be classified by sources and by major and minor groups. The entry to record estimated revenues would be in somewhat the following form:

Estimated Revenues	2,400,000	
Fund Balance		2,400,000
To record estimated revenues per budget for 1969.		

Estimated revenues:		
Taxes:		
General property taxes	$600,000	
General sales tax	190,000	
Income taxes	72,000	$ 862,000
Licenses and permits:		
Business licenses and permits	$ 1,200	
Nonbusiness licenses and permits	80,000	81,200
Others		1,456,800
		$2,400,000

From the foregoing entry, each amount shown for a detailed revenue account would be posted to the debit column of its subsidiary ledger account. If some items of revenue are recorded on an accrual basis, and if it is expected that a loss in collections will result, the amount to be recorded as estimated revenue for that source should be the amount of the accrual less the amount of the expected loss.

If the estimated revenue per the budget is recorded in conventional form—that is with a credit to Appropriations and a credit or a debit to Fund Balance—the detailed listings will be made in practically the same form as that shown in the preceding illustration.

Although the normal time for entries in the revenue ledger debit columns is at the beginning of the fiscal period, when the budget is recorded, entries may be required at other times. If occasion should arise for the legislative body to recognize formally any adjustment in the revenue estimate for a period, the change would have to be detailed by sources; and increases or decreases would have to be entered in each of the source accounts affected, with corresponding changes of the account balance.

Summary of entries for revenue collection

Although largely repetitious of what has been said before, the next few paragraphs attempt to bring together and correlate the discussions of revenue realization and collection scattered through preceding paragraphs. Collection of revenue may be made directly by the governmental unit which receives the revenue or through branches, agencies, or other governmental units. Regardless of the method of collection, the recording entry is likely to be made when the money—whether in cash, bank credits, or other forms—is received. It is to be expected that entries for collections will be journalized in some form of cash receipts record which must provide for showing not only the total amount received but also a listing of the amount from each source. In general journal form the substance of entries recording collections of revenue would be somewhat as follows:

Cash		3,220	
Revenues			3,220
To record collection of revenue as follows:			
Credit:			
Fines and forfeits:			
Court fines	$3,200		
Library fines	20		
	$3,220		

The amounts shown as received from each source will be posted to their respective ledger accounts, credit column; and balances of the subsidiary accounts will be changed as required.

One general exception must be noted to the effect of revenue collec-

tions just shown. Revenues from taxes or any other sources which are accrued will be recorded when the accrual is made a matter of record, if the conventional method of recording accruals is followed. This means, for example, that when a tax levy is recorded in the conventional manner, the credit is to Revenues and to the subsidiary ledger account which records the kind of taxes accrued. If the accrual of $690,000 of property taxes with an expected loss of $42,000 is recorded, the result is a $648,000 credit to a subsidiary ledger account. The entry, in general journal form, would be as follows:

Taxes Receivable—Current	690,000	
Estimated Uncollectible Taxes—Current		42,000
Revenues		648,000
To record tax of $690,000, with expected loss of $42,000.		

Credit:
Taxes:
General property taxes $648,000

In this instance the credit of $648,000 to the General Property Taxes subsidiary ledger account would represent realization through the levying of a legally enforceable claim rather than through collection. Actual collection of general property taxes would occasion no credit to Revenues but rather to Taxes Receivable and to an individual taxpayer's account, in an entry such as the following:

Cash	39,000	
Taxes Receivable—Current		39,000
To record collection of current taxes from various taxpayers.		

In the event that taxes had been accrued, with a credit to the Reserve for Uncollected Taxes account for the net estimated revenue, collection might be recorded in the following manner:

Cash	39,000	
Taxes Receivable—Current		39,000
To record collection of taxes receivable in the above amount.		
Reserve for Uncollected Taxes—Current	39,000	
Revenues		39,000
To take up revenue from $39,000 of accrued taxes collected.		

Credit:
Taxes:
General property taxes $39,000

The foregoing paragraphs have discussed property taxes on an accrual basis. If revenue accounting is done on a cash receipts basis, separate accounts should be provided for revenue from the current year's tax levy and for collections on account of prior years' levies.

Any reductions of revenue, through refunds of amounts collected or rebates of amounts levied, would require debits to the Revenues account and to subsidiary ledger accounts recording the revenues that have been reduced.

Closing revenue accounts

In the study of closing entries for governmental revenue accounts, it should be borne in mind that bona fide closing entries are purely mechanical in nature and exist only for two purposes:

1. To close all revenue accounts for the period. This means to equalize debits and credits.
2. To transfer the balance, or the net difference between estimated and actual revenue, to Fund Balance.

The form of closing entries is immaterial as long as these two purposes are accomplished.

The exact form of entries to close general ledger accounts for estimated revenues and actual revenues is subject to a number of variations; but whatever the form of entry employed, the results in part must be a debit to Revenues and a credit to Estimated Revenues for the balances shown for those accounts in the general ledger. The closing of subsidiary ledger accounts cannot be disposed of so briefly. However, a general rule is that in the closing entries each revenue subsidiary ledger account will be debited or credited for the amount of its balance at the end of the period. If estimated revenue from a given source exceeded actual revenue, the subsidiary ledger account will have a debit balance and must receive an entry in the credit column to balance or close. If actual revenue exceeded the estimated revenue, a credit balance will exist, and a debit entry will be required to close.

In one respect the entries to close revenue and estimated revenue accounts are strikingly different from the entries initially recording estimated revenue or receipts of revenue. If, in the entry recording estimated revenues, the Estimated Revenues account was debited for $560,000, there would be detailed debits totaling $560,000 to individual revenue accounts in the subsidiary ledger. However, in closing the Estimated Revenues account, it would be credited for $560,000; but credits to detailed revenue accounts might total only $10,000, or even less. In like manner, if the Revenues controlling account has a balance of $565,000 at the end of the fiscal period, it will be debited for $565,000; whereas debits to individual revenue accounts in the subsidiary ledger might total only $15,000. The reason for these unusual relationships is that some of the detailed revenue accounts show excesses of estimated revenue over actual revenue, while others show excesses of actual over estimated. If any individual revenue account shows equality of estimated and actual revenue, it will be neither debited nor credited in the closing entry. To illustrate the entry to close the Revenues and Estimated Revenues accounts, let it be assumed that the subsidiary revenue ledger contains, among others, details as shown in Illustration 4–2.

Illustration 4–2

SUMMARY OF ESTIMATED AND ACTUAL REVENUE

Name of Account	*Estimated Revenue (Dr.)*	*Revenue (Cr.)*
Property taxes	$270,000	$265,000
Gross receipts taxes	30,000	45,000
Professional licenses	500	600
Street and curb permits	500	500
State grants—welfare	251,000	245,000
Forfeits	8,000	8,900
	$560,000	$565,000

The necessary closing entry, based upon the assumed figures in Illustration 4–2, would be as follows:

Revenues		565,000	
Estimated Revenues			560,000
Fund Balance			5,000
Subsidiary ledger debits:			
Gross receipts taxes	$15,000		
Professional licenses	100		
Forfeits	900		
	$16,000		
Subsidiary ledger credits:			
Property taxes	$ 5,000		
State grants—welfare	6,000		
	$11,000		

The account for street and curb permits has equal debits and credits (Illustration 4–2) and requires no closing.

Concerning the above entries, it will be observed that the excess of detailed debits over detailed credits, representing the excess of the actual over the estimated revenue, equals the amount of the credit to the Fund Balance or other summary account which might be used for closing purposes. Amounts shown in lists of detailed debits and credits will be posted to their respective accounts, thus reducing their balance to zero. Thereupon, the accounts may be ruled for closing or removed from the ledger, whichever method is provided for in the accounting procedure.

Preparation of statements

Financial statements should do at least two things for administrators and managers: (1) give information in the form of figures and comparisons, and (2) raise questions. The main questions raised should be:

1. What caused this condition or change?
2. Is the condition or change favorable or unfavorable?
3. If favorable, what can be done to retain it or accelerate it?
4. If unfavorable, what can be done in the way of correction?

In general, financial statements containing information in comparative form are more useful than those confined to a single set of data.

Probably the most important statement of general fund revenue is one detailing by sources and classes the amounts estimated by the governmental unit's legislative body for a given period, the amount of revenue actually received (or accrued, if the accrual basis is used), and the excess or deficiency of estimated revenues as compared with actual revenues. If so desired, net differences could be reduced to percentages. Sources of information for such a statement would be detailed accounts in the revenue ledger, which would give the amounts for each source; and this, in turn, would be grouped by classes provided for in the chart of accounts or other comparable outline. An example of such a statement, in the form recommended by the National Committee on Governmental Accounting, is shown in Illustration 4–3. For purposes of brevity, only a few items are included.

It may be pointed out that the statement in Illustration 4–3 may be reduced to summarized form, if so desired, to show figures by classes, which, in turn, may be detailed in supplementary schedules supporting the main statement. Another form of revenue statement which might be of value is a comparative statement of revenue by fiscal periods, from which could be determined trends in revenue used to support the fund activities.

Revenue statements serve a twofold purpose in the administration of general fund financial operations. For one thing, they provide fund management with a comprehensive and detailed comparison between the revenue anticipated and that actually realized. Excesses of actual over estimated revenue will be of interest, but primary attention should be focused on substantial deficiencies of the actual figures as compared with the estimated ones. Such differences may be accounted for in one or more of three ways, as follows:

1. Change in conditions, including laws, ordinances, or other regulations, between the time of estimating and the time of collecting.
2. Failure to collect revenue or loss of revenue after collection through misappropriation or other illegal activity.
3. Intentional overestimation of revenue to support appropriations beyond the amount of revenue which could honestly be expected.

In the second place, revenue statements are indispensable aids to successful planning for the future. They reveal what sources have been drawn upon in the past and the amounts obtained from each source. Ordnarily, most of these may be relied upon in the future; but changes may have eliminated some, whereas others promise either substantially more or substantially less contributions in subsequent periods. Furthermore, comparisons between revenue statements of one general fund and those of other similar general funds may suggest potential sources not previously drawn upon.

Illustration 4–3

TOWN OF SANDERS

General Fund
Statement of Revenues—Estimated and Actual
Fiscal Year Ended June 30, 1969

Source Classes and Items	*Estimated*	*Actual*	*Excess–Deficiency* of Actual Compared with Estimated*	
			Amount	*Percent*
Taxes:				
Taxes on real property..........	$401,200	$399,600	$ 1,600*	0.4*
Taxes on personal property......	201,600	193,300	8,300*	4.1*
City sales tax..................	82,200	83,200	1,000	1.2
Total taxes...............	$685,000	$676,100	$ 8,900*	1.3*
Licenses and permits:				
Sanitary inspection permits......	$ 1,700	$ 2,400	$ 700	41.2
Taxicab licenses...............	2,700	2,800	100	3.7
Motor vehicle registration fees...	39,600	38,100	1,500*	3.8*
Total licenses and permits...	$ 44,000	$ 43,300	$ 700*	1.6*
Intergovernmental revenue:				
Federal grants—highways and streets......................	$ 64,300	$ 69,900	$ 5,600	8.7
State grants—welfare...........	35,000	34,000	1,000*	2.9*
Shared revenue from county—property tax................	12,000	9,300	2,700*	22.5*
Total intergovernmental revenue................	$111,300	$113,200	$ 1,900	1.7
Charges for services:				
Court costs—fees and charges....	$ 8,090	$ 13,600	$ 5,510	68.1
Sewerage charges..............	18,300	21,400	3,100	16.9
Golf fees....................	12,100	16,700	4,600	38.0
Total charges for services...	$ 38,490	$ 51,700	$13,210	34.3
Fines and forfeits:				
Fines—city court...............	$ 7,200	$ 6,100	$ 1,100*	15.3*
Forfeits by contractors..........	2,400	2,600	200	8.3
Total fines and forfeits......	$ 9,600	$ 8,700	$ 900*	9.4*
Miscellaneous revenue:				
Interest earnings...............	$ 960	$ 1,030	$ 70	7.3
Compensation for loss of fixed assets......................	...	12,400	12,400	...†
Total miscellaneous revenue.	$ 960	$ 13,430	$12,470	1,299.0
Total General Fund Revenue......	$889,350	$906,430	$17,080	1.9

† Base is 0; percentage cannot be calculated.
NOTE: The selection of items included in Illustration 4–3 is illustrative but not typical, having been picked more or less at random from a long list.

If so desired, other revenue statements for general funds may be prepared. These might include interim statements showing revenue to date as compared with estimated total for the year and comparisons between revenue for the current year to date and for the same period of the preceding year.

SELECTED REFERENCES

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Morey, Lloyd, and Hackett, Robert Phillip. *Fundamentals of Governmental Accounting*, chap. vi. 2d ed.; New York: John Wiley & Sons, Inc., 1951.

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National Committee on Governmental Accounting. *Governmental Accounting, Auditing, and Financial Reporting*, chap. ii. and pp. 188–90. Chicago, 1968.

Tenner, Irving, and Lynn, Edward S. *Municipal and Governmental Accounting*, chap. v. 4th ed.; Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1960.

QUESTIONS

1. Do revenue subsidiary ledger accounts have a debit balance or a credit balance most of the time? Why?
2. Balances (amounts) from Discontinued Funds is listed in a manual as being Miscellaneous Revenue. Is this sort of item revenue of both the recipient fund and the governmental unit, or only of the recipient fund?
3. Referring to taxes from real property and taxes from personal property, what are the meanings of "real" and "personal"?
4. If one were required to make a closing entry, or closing entries, for the revenue accounts in Illustration 4–3 (taxes on real property, taxes on personal property, etc.) which subsidiary ledger revenue accounts would be credited? List titles, only.
5. In a general fund balance sheet there appeared the following information: taxes receivable, $96,050; reserve for uncollected taxes, $84,300; allowance for uncollectible taxes, $11,750. How did use of the accounting procedure for accounting for revenue, as indicated by the three items, affect the fund balance, as compared with the conventional accrual basis used in accounting for tax revenue? State the amount and nature (increase or decrease) of the difference.
6. The revenue statement of a small municipality included the following revenue classes: state and federal payments; judiciary; city taxes; licenses;

city government operations. To which one of the six standard sources classes does each of the five classes most closely correspond?

7. The following variations have been noted in the classifications of certain revenue items in municipal reports:

   a) Interest and penalties on taxes: taxes and revenue from use of money and property. (The latter classification is now obsolete.)
   b) Library fines: fines and forfeits and charges for services.
   c) Parking meter receipts: licenses and permits, revenue from use of money and property, charges for services, and miscellaneous. (The second classification is now obsolete.)

   For most of the classifications reported there is some measure of logic. Insofar as you can, justify or defend each of the stated classifications.

8. In Problem 3 (below) the estimated and actual amounts of property taxes were taken from a published annual report. Was the small percentage of difference between the two a coincidence or was there some more fundamental reason? Explain.

9. Below are listed a number of common kinds of governmental revenue. For each item state at least one factor, other than change of rate, which might account for a substantial variation between estimated and actual revenue for a given year. If your answer is "change in volume," state what cause of change you have in mind.

   a) Highway tolls.
   b) Sewerage charges.
   c) Share of state-collected gasoline taxes.
   d) Sales taxes.
   e) Parking meter receipts.
   f) Recording of legal documents.
   g) Building permits.
   h) Property taxes—cash basis.
   i) Receipts from parking violations.
   j) Fire protection—outlying districts.
   k) Storage on impounded cars.
   l) Electricians' registration fees.
   m) Parking lot revenue.

10. In the town of Rockville's accounting system is a stipulation that all revenue shall be accounted for on the full accrual basis. Below is shown a list of Rockville general fund transactions of a revenue or semirevenue nature. State which ones are actually revenue in the year of occurrence.

    a) Collection of prior years' taxes.
    b) Increase in materials and supplies inventory compared with amount at end of prior year.
    c) Collection of taxes applicable to current year which, due to an assessor's error, had not been recorded.
    d) Refund on current year's expenditures.
    e) Collection of accounts receivable for charges for services.
    f) Collection of current-year property taxes.
    g) Charge to a special revenue fund for supplies transferred to it.
    h) Receipt of refund on prior year's expenditures.
    i) Collection of taxes which had been written off in prior year.
    j) Receipt of money from issue of tax anticipation notes.
    k) Collection of money for vendors' license fees.
    l) Recording of property tax levy.
    m) Recording charges to outlying districts for fire protection service.
    n) Collection of premium on sale of bonds, money for both principal and interest to be provided by this fund.
    o) Receipt of money in prepayment of a property owner's next year taxes.

11. Below is given a list of revenue titles taken from various governmental reports. You are required to state in which of the National Committee

on Governmental Accounting's sixfold classes each item should be recorded.

a) Engineering service fees.
b) Sales taxes levied by the governmental unit.
c) Receipts from county in payment for rural library service.
d) Transfers from discontinued funds.
e) Dog redemption fees.
f) Traffic violation penalties.
g) Forfeiture, by owners, of property confiscated for taxes.
h) Royalties from oil wells on city property.
i) Charges for waste collection and disposal.
j) Contributions to "conscience" fund.
k) Plumbers' registration fees.
l) City's share of state severance tax.
m) Charges for pumping basements.
n) Federal grant for airport improvements.
o) Sale of unused land.
p) Peddlers' license fees.
q) Real estate taxes—current year.
r) Rentals from restricted parking areas for home owners and others.

12. In Problem 5 (below) the ratio of estimated uncollectible taxes of prior years is nearly 75 percent of prior years' taxes. Is this an exaggeration or is there some logic behind it?

PROBLEMS

1. For the fiscal year ended June 30, 1969, the town of Harrisville reported general fund estimated and actual charges for services as follows:

Items	*Estimated*	*Realized*
Parking meters	$ 42,000	$ 43,150
Sales of publications	1,000	1,824
Swimming pool fees	30,000	47,635
Sewerage charges	225,000	230,492
Street lighting charges	80,000	76,309
Special fire protection	8,000	8,000

You are required to do the following things, using Fund Balance as the balancing account where none other is specified:

a) Make a complete entry in general journal form (see page 84) to record the budget estimate of charges for services. See (*d*). (In practice, charges for services revenue should be classified by the service functions to which the revenue is related. For economy of time, this kind of classification may be omitted from the solution to this problem.)

b) Make a summary entry in general journal form to record realization of revenue from charges for services. Assume cash was received for the entire amount. See (*d*).

c) Make an entry in general journal form to close charges for services revenue and estimated revenue accounts at June 30, 1969. See (*d*).

d) Make all general and subsidiary ledger postings required by the prescribed entries. For general ledger items T accounts will suffice. For revenue subsidiary ledger accounts only the names of the items need be shown as headings. For subsidiary ledger accounts, use the following column headings: Entry letter, Items, Debit, Credit, Balance. In general ledger accounts substitute entry letters for dates.

2. For the fiscal year ending April 30, 1969, the Common Council of Roanoke Heights enacted a general fund revenue budget containing the following estimates of revenue from licenses and permits:

Alcoholic beverage licenses	$ 2,200
Motor vehicle licenses	54,100
Amusement licenses	37,000
Burial permits	1,660
Animal licenses	4,030

Early in fiscal 1969 certain material errors in the estimates became apparent, signifying the need for a reduction of 1969 fiscal year revenue estimates and appropriations, and the following reductions were formally approved by the common council on May 20, 1968.

Estimated revenue:	
Motor vehicle licenses	$5,200
Amusement licenses	6,500
Appropriations:	
Police protection	$4,000
Fire protection	5,400
Protective inspection	3,100

Receipts of revenue from licenses and permits during fiscal 1969 were as follows:

Alcoholic beverage licenses	$ 4,050
Motor vehicle licenses	50,100
Amusement licenses	29,600
Burial permits	1,740
Animal licenses	4,120

You are required to do the following things, using Fund Balance as a balancing account, where no other is indicated, to complete a journal entry:

a) Make a complete entry in general journal form, as of May 1, 1968, to record the estimate of revenue from licenses and permits. See (*e*).

b) Make a complete entry in general journal form, as of May 20, 1968, to record revision of the 1969 budget. See (*e*).

c) Make a complete entry in general journal form, to record receipt of revenue from licenses and permits during fiscal 1969. See (*e*).

d) Make a journal entry to close Estimated Revenues, Revenues, and revenue subsidiary ledger accounts at April 30, 1969. (This requirement may be simplified by doing all of part (*e*) through entries for part (*c*) before doing this part.)

e) Post all entries to general ledger accounts and to revenue subsidiary ledger accounts. Ignore subsidiary ledger accounts for appropriations. Substitute transaction letters (*a*, *b*, etc.) for dates in ledger postings. Provide the following columns for revenue subsidiary ledger accounts: Entry letter, Item, Debit, Credit, Balance. For revenue subsidiary ledger accounts the names of the subclasses (alcoholic beverage licenses, etc.) will suffice as headings.

3. Below is given a listing of budgeted (estimated) and realized revenue of city of Clermont general fund for the fiscal year ended September 30,

1969. You are required to prepare a comparative statement of estimated and realized revenue, with items grouped according to the six conventional source classes of revenue (taxes, licenses and permits, etc.) Under column heading of "Excess-Deficiency* of Actual Compared with Estimated" show the amount, nature, and percentage of change. Carry percentages to nearest tenth of one percent. If the base element (estimated) is 0, there can be no *percentage* of change.

Item	*Estimated*	*Actual*
Vehicle code fines	$ 200,000	$ 252,215
Loading permits	500	360
Property taxes	4,242,508	4,265,752
Oil well royalties	132,000	125,037
Interest on temporary investments	3,500	4,212
Donations	3,000	...
Welfare apportionment from county	346,219	328,012
Penalties and interest—delinquent taxes	12,000	11,872
Court costs—fees and charges	48,000	58,996
Business licenses	280,000	344,888
State-collected motor vehicle license fees	481,510	524,620
Confiscation of contract performance deposits	10,000	8,700
Littering violation penalties	1,000	1,350
Federal Aid to Dependent Children	...	12,279
Amusement taxes	22,000	20,147
Special police service revenue	15,000	17,300

4. Among the records and statements delivered to a senior accountant directing the audit of a municipality was the one depicted below.

TOWN OF REMINGTON

Operating Fund
Financial Statement, April 30, 1969

	Estimated	*Actual*
Taxes:		
General property taxes:		
Current year's taxes	$ 699,840	$ 701,310
Prior years' taxes	66,900	64,200
Total general property taxes	$ 766,740	$ 765,510
Other taxes:		
Franchise taxes	$ 1,500	$ 1,500
Amusement taxes	21,000	19,600
Distribution of state intangible taxes	11,000	12,400
Poll taxes	1,980	2,160
Total other taxes	$ 35,480	$ 35,660
Total taxes	$ 802,220	$ 801,170
Licenses and permits:		
Parking meter receipts	$ 37,600	$ 29,400
Engineering fees	17,040	21,660
Burial permits	1,300	970
Building permits	21,630	19,407
Total licenses and permits	$ 77,570	$ 71,437
Fines, forfeitures, and penalties:		
City court fines	$ 6,000	$ 6,840
Deposits forfeited	2,000	2,140
Penalties on delinquent taxes	800	630
Total fines, forfeitures, and penalties	$ 8,800	$ 9,610

Revenue from use of money and property:		
Petroleum royalties	...	$ 201,600
Auditorium rentals	$ 12,000	12,800
Discounts on purchases	440	420
Interest on delinquent taxes	660	710
Swimming pool revenue	11,000	13,600
Total revenue from use of money and property	$ 24,100	$ 229,130
Revenue from other agencies and persons:		
Distribution of state gasoline taxes	$ 91,440	$ 89,660
Insurance settlement for fire loss	12,000	15,770
"Conscience" money—tax evasion	500	690
Money received from bond retirement fund	...	30,000
County contribution for airport expansion	9,000	9,000
Total revenue from other agencies and persons	$ 112,940	$ 145,120
Charges for current services:		
Pumping water from basements	$ 200	$ 520
Mowing weeds on vacant lots	1,000	1,100
Proceeds from sale of property	2,000	12,650
Waste collection and disposal charges	12,000	13,380
Total charges for current services	$ 15,200	$ 27,650
Grand Totals	$1,040,830	$1,184,117

During the course of their investigation the auditors obtained the following supplementary information:

(1) The amount described as a franchise tax was in fact, an amount received as a lump-sum payment for rental of town property occupied by a private utility.
(2) The amount reported as engineering fees was not a licensing charge but the total, both estimated and actual, of charges to private citizens for engineering services provided by the town's work force.
(3) Penalties on delinquent taxes and interest on delinquent taxes pertain to the items reported under general property taxes.
(4) Discounts on purchases were of the kinds nowadays considered as reductions of cost.
(5) Distributions of state gasoline taxes have no relevancy to the operating fund. They should be received directly and accounted for by the town's street fund.
(6) Town of Remington operating fund consistently records cash received from a special bond retirement fund, for payment of bonds, as immediately creating a liability which it captions Matured Bonds Payable. The town has not, to date, established a bona fide debt service fund but retires bonds through its operating fund.
(7) The town's auditorium is managed by the operating fund but a special revenue fund administers the swimming pool and is entitled to revenue from the operation.

You are required to do the following things:

a) You will recognize that the revenue statement received by the auditors does not use the current source classes of revenue, as well as including items which are not actually revenue to it. You are required to recast the statement into a similar statement with a correct heading using the sixfold classification of revenue now recommended for small general fund operations. Retain the two subclasses of taxes. Making informal lists of kinds of revenue to be shown under each of the six classes, before preparing the formal statement, will save time.

b) Do you think there are any striking variances between estimated and actual revenue in town of Remington's statement? If so, what do you think might be a plausible explanation?

c) State whether you think the town's anticipation of receiving $12,000 from settlement of a fire loss would necessarily create suspicion in the mind of a fire loss adjuster if he saw the revenue statement.

5. In 1933, the town of Shelburn, which accounted for revenue on the accrual basis, incurred serious financial difficulty because collections of property taxes fell far short of the amount of revenue shown when the tax levy was recorded. Soon thereafter, use of the accrual basis for revenue was officially prohibited, but recording of the tax levy as charges against property owners was approved.

   At June 30, 1969, the end of a fiscal year, Shelburn's general fund ledger showed the following names and balances of accounts related to property taxes:

Estimated uncollectible taxes—current year	$ 29,000
Estimated uncollectible taxes—prior years	78,000
Estimated revenues—current year's taxes	835,000
Estimated revenues—prior years' taxes	58,000
Reserve for uncollected taxes—current year	56,000
Reserve for uncollected taxes—prior years	31,000
Revenue—current year's taxes	811,000
Revenue—prior years' taxes	65,000
Taxes receivable—current year	66,000
Taxes receivable—prior years	107,000

   It is the practice to transfer, at the end of each month, the amount collected during the month, from Reserve for Uncollected Taxes to Revenue. This had not yet been done at the end of June, 1969, as evidenced by the fact that the sum of reserve for uncollected taxes and estimated uncollectible taxes for both this and prior years exceeded the balances of the related taxes receivable accounts.

   For fiscal 1970 the town board had ordained a tax rate which would produce a total levy of approximately $830,000, of which 4 percent was expected to be uncollectible.

   You are required to do the following things:

   a) Make all entries required at June 30, 1969. Use Fund Balance as the balancing account for the estimated revenue and revenue accounts. Accounts related to the current year's taxes receivable may be transferred to prior-years classification at this time.

   b) Record the fiscal 1970 tax levy.

   c) Make a budgetary entry for 1970 with an expenditures budget (appropriations) of $1,195,300 and estimated revenues as follows: current year's tax levy, $797,000; prior years' tax levies, $43,200; other revenues, $390,600. Use Fund Balance for balancing your entry. No explanation required.

6. The following information pertains to the operations of the general fund of K County. Functions of this county government include operating the county jail and caring for the county courts.

   Funds to finance the operations are provided from a levy of county tax against the towns of the county; from the state distribution of unincorporated business taxes; from board of jail prisoners assessed against

the towns and against the state; and from interest on savings accounts.

The balances of the asset accounts of the fund after closing on December 31, 1968 were as shown below. There were no liabilities.

Cash on hand	$ 320
Cash in checking accounts	41,380
Cash in savings accounts	60,650
Inventory of jail supplies	3,070
Due from towns and state board of prisoners	3,550

The budget for the year 1969 as adopted by the county commissioners provided for the following items of revenue and expenditures:

(1) Town and county taxes	$20,000
(2) Jail operating costs	55,000
(3) Court operating costs	7,500
(4) Unincorporated business taxes	18,000
(5) Board of prisoners (revenue)	5,000
(6) Commissioners' salaries and expenses	8,000
(7) Interest on savings (credited to savings account)	1,000
(8) Miscellaneous expenses	1,000

The following memoranda represent all the transactions which were debited to expenditures or credited to revenues during the year, with all expenditure bills vouchered and paid by December 31, 1969:

Item (1) was transacted exactly as budgeted.	
Item (2) cash disbursements amounted to	$55,230
Item (3) amounted to	7,110
Item (4) amounted to	18,070
Item (5) billings amounted to	4,550
Item (6) amounted to	6,670
Item (7) amounted to (added to savings)	1,050
Item (8) amounted to	2,310

During the year, $25,000 was transferred from savings accounts to checking accounts. At December 31, 1969, the jail supply inventory amounted to $5,120; cash (prisoners' board money) of $380 was on hand; and $1,325 of prisoners' board bills were unpaid.

you are required to do the following things:

a) On columnar paper list account titles and balances to make a complete trial balance for December 31, 1968.

b) Determine total estimated revenues and total appropriations and make an entry in the second pair of money columns (Transactions for 1969) to record the 1969 budget. Record general ledger accounts only.

c) Record all the transactions stated above. Since all expense bills have been vouchered and paid by December 31, 1969, Vouchers Payable may be omitted and all expenditures recorded as cash transactions. All expenditures and all revenues may be recorded in totals. Revenue collections may be debited to Cash on Hand.

d) Make entries for other transactions not specifically stated but required to produce the balances stated in the problem.

e) In the third pair of money columns include a trial balance of the fund before closing at December 31, 1969.

(AICPA, adapted)

CONTINUOUS PROBLEM

4-L. This problem continues the "L" problems concerning the city of Bingham.

You are required to:

a) Open all necessary Revenue subsidiary ledger accounts (see Problem 2-L) for the general fund. An appropriate form is illustrated in Chapter 4.

b) Post to the Revenue subsidiary ledger appropriate general journal entries made in Problems 2-L and 3-L.

c) Prepare in good form a statement comparing the adjusted general fund revenue budget with the actual revenues for the first six months.

d) Classify the revenue items below under the captions used by the city of Bingham:

1. Interest on Bank Deposits
2. Aircraft Landing Fees
3. Sale of Scrap
4. Sale of Land and Buildings
5. Group Life Insurance Dividend
6. Vehicle Code Fines
7. Parking Meter Collections
8. State Gasoline Tax Apportioned to the City
9. Weed Abatement
10. City Sales Tax

Chapter 5

General Funds: Expenditure Accounting

A generally accepted definition of the expenditures of a fund is that they are all charges against the fund assets for expenses (services and supplies), for provision for retirement of debt not already recorded as a fund liability, and for capital outlays. If accounts are kept on the accrual basis, "charges" include both actual disbursements and recording of liabilities to make disbursements in the future; but if the cash basis is used, "charges" are limited to actual payments. This chapter considers, first, all governmental expenditures; and then, those of the general fund in particular.

The basis of all expenditure accounting is classification, "classification" being principally a systematic device for assisting in the description of the transactions classified. Adequate control is impossible without precise description. The *primary* classification of governmental expenditures is by funds. Thus, by indicating the fund to which a given expenditure pertains, a certain degree of classification or description is provided. This is true because of the more or less standardized nature of the funds commonly used. To illustrate, the mere fact that a given expenditure applies to an intragovernmental service fund serves to identify it immediately as being related to service rendered by a governmental department or office which specializes in serving other departments or offices.

A second major system of classifying expenditures is by function. In governmental accounting, "function" designates one of the generally recognized classes of service which a governmental unit provides for its citizens. Although opinions on the subject are at variance, one authoritative listing contains eight * which are commonly accounted for by use of a general fund or special revenue funds. These eight * are as follows:

General government	Health
Public safety	Welfare
Highways	Education (or Schools)
Sanitation	Culture—Recreation

* The second printing of NCGA's *Governmental Accounting, Auditing, and Financial Reporting* lists a ninth, Conservation and Development.

It is important to note that some of the foregoing listed functions often individually generate such a volume and variety of financial affairs that they acquire semidetached satellite existence. Affairs of a functional entity may even assume such magnitude that all classes of funds except special assessment and enterprise, plus general fixed assets and general long-term debt and interest groups, are utilized. A very common functional entity, public school systems, is the subject of Chapter 18. Some state highway departments have almost equal diversity of fund and group structures.

In addition to the eight functions extensively accounted for in general and special revenue funds there are a few (but not all others) which require other kinds of techniques. Some of the more common of the additional functions are: enterprise services (utilities, public housing, airports); debt service; intergovernmental assistance (primarily state and federal); and miscellaneous, for expenditures not appropriate to any of the more clearly defined titles. The last named classification accommodates such expenditures as those for judgments and losses; retirement and pension contributions; workmen's and unemployment compensation; and other charges not admissable to another functional class.

The number and identity of functional classes to be used by a single fund is dependent upon the number and variety of expenditure transactions recorded in the fund. The number of functional classes employed should be as small as possible consistent with adequate functional description of the expenditures transactions recorded in the fund. Insofar as possible, standard, generally recognized descriptions and names of functions should be regularly used to facilitate comparison with reports of other governmental units, and to expedite the work of auditing records and reports incorporating a functional classification.

Classification by activities

In order to provide further control over expenditures, functions are usually analyzed into activities. For present purposes, an activity may be regarded as a meaningful subdivision of the things done by a governmental unit in performing a given function. One published classification of expenditures for the health function lists eight activity titles. They are:

Public health administration	Maternal and child health services
Vital statistics	Adult health services
Regulation and inspection	Health centers and general clinics
Communicable disease control	Laboratory

Amplification of this list would be desirable for a large-sized governmental unit, in order to provide clearer description of its operations.

Activity classification of expenditures is of special significance in a relatively undeveloped but important field of governmental accounting—unit cost accounting. Division of the total cost of an activity by the

number of units of activity performed gives an objective measure of the amount of service materializing from the taxpayer's dollar.

Classification by object

The final analysis of expenditures in the function–activities continuity is by object, or the thing for which the expenditure was made. In terms similar to those used for defining function and activity, an object is a subdivision of an activity. As for other bases of classification, the extent of the object classification is likely to differ with the variety and amount of expenditures involved. A scheme of object classification recommended for use by small and medium-sized units includes the following titles:

Personal service
Supplies
Other services and charges
Capital outlays[1]

This means that costs incurred in performing a given activity may be divided into those four classes. A more detailed analysis is provided by the following ninefold classification:

Personal services
Contractual services
Commodities
Interest charges
Debt redemption
Sundry charges
Land
Buildings and improvements
Equipment

Perhaps the present ultimate in object classification is the system employed in some branches of the federal government wherein 16 different classes are recognized. This reflects the variety and volume of expenditures made by the federal government.

If so desired, major object classifications may be analyzed into such minor classifications as are deemed necessary for proper control. Thus, personal service may be subdivided on the basis of permanence and regularity of employment of the persons represented; and each of these subclasses may be broken down to show whether the services performed were regular, overtime, or extra.

Classification by organizational unit

Detailed description of governmental expenditures by purpose—that is, by function, activity, and object—is not the only basis for control available to governmental administrators and others interested in effective and economical use of government funds. Also of importance is information about the organizational unit which brought about the expenditures. This is a means of establishing personal responsibility for use of public money, without which reasonable control would be difficult, if not impossible. It permits close correlation of budget requests and appropriation expendi-

[1] According to the latest (1968) pronouncement of the National Committee on Governmental Accounting this is also the name of a character classification. (See page 104.)

tures. Organizational classification ordinarily begins with the branches or agencies of government and thence descends through bureaus, divisions, and whatever other units may be included in the organizational scheme. Since the organizational pattern of governments is not uniform but varies on account of many different influences, it follows that organizational classifications of expenditures must be drawn to fit each individual case.

As an example of what may be involved in the accumulation of information through the organizational structure, the following outline of an imaginary organization for protecting life and property in a very large city is given:

- Protection of Life and Property
  - Department of Police
    - Chief's Office
    - Personnel Bureau
      - Administrative Division
      - Division of Instruction
    - Bureau of Uniformed Personnel
      - General Police Division
      - Medical Division
      - Division of Motion-Picture Censorship
    - Detective Bureau
      - Investigation Division
      - Identification Division
      - Criminal Correspondence Division
    - Traffic Bureau
      - Mounted Division
      - Motorcycle Division
      - Vehicle Division
    - Bureau of Records and Property
      - Clinical Division
      - Division of Criminal Information and Statistics
      - Signal Division
      - Property Division
  - Department of Fire
    - Chief's Office
    - Bureau of Fire Control and Extinguishment
      - Administrative Division
      - Division of Fire Extinguishment
      - Division of Instruction
      - Division of Fire Alarm Signal
    - Bureau of Fire Prevention
    - Bureau of Equipment and Supplies
      - Administrative Division
      - Clinical Division
      - Emergency and Special Service Division
      - Repair Division
      - Division of Building Maintenance

Department of Inspection
  Bureau of Building Inspection
  Board of Examiners of Plumbers
  Board of Examiners of Engineers
  Board of Examiners of Masonry Contractors

An ideal scheme for classification of governmental expenditures would incorporate exact correlation between organizational units on the one hand and functions and activities on the other. This would establish definite responsibility for costs and quality of services received. However, complete correlation to the degree suggested is not feasible. As an illustration, two or more departments may participate in the discharge of one function—for example, the Police Department and Fire Department, both of which normally contribute to public safety. On the other hand, both the function of sanitation and that of highways may be discharged by a single Public Works Department. Finally, a given kind of activity, such as supervision, may be engaged in by a number of different bureaus or other governmental organizations in the performance of their duties.

Classification by character

The final basis of classification to be discussed here is character of the expenditure—generally speaking, as to whether it is for past, present, or future benefits. A common classification of expenditures by character recognizes three groups, as follows:

Current expenses
Capital outlays[2]
Debt service

Debt service includes both payments of principal and interest on bonds and contributions to debt service funds. Current expenses include those expenditures made for day-to-day operation, administration, and maintenance, most of the benefit of which is current in nature. Capital outlays are, as the name implies, those that create values to be realized over a long period of time, in the nature of land, structures, and improvements.

Little correlation or integration exists between classification by character and the other bases of classification discussed above. Character classifications cut irregularly across the other systems of classification and bear no logical or consistent relationship to any of them.

Character classification of expenditures is potentially of great significance to taxpayers and other citizens. Properly used, it could give them valuable information for appraising the cost of government during a given period. Generally speaking, amounts spent for debt retirement represent costs incurred by previous administrations; whereas capital outlays are

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[2] According to the latest (1968) pronouncement of the National Committee on Governmental Accounting this is also the name of an object classification.

forward-looking in nature and tend to reduce the cost of government in the future or to increase benefits not covered by current costs. Undoubtedly, however, expenditures for current purposes and uses are most influential on the public mind, strongly influencing popular attitude toward responsible officials.

Coding of accounts

Any well-organized accounting system using as many as 40 or 50 different accounts should include a code symbol for each account. A code symbol has been described as a device consisting of numbers or letters, or a combination of numbers and letters, for identifying the account or referring to it without stating its full title. The values of a code of accounts, using the expression collectively, are suggested in the following brief summary:

1. The use of a code provides more exact identification of a transaction or other financial fact than might be furnished by a literal description. This value is of special importance in accounting systems consisting of great numbers of accounts, many of which differ from others in only minor details.
2. Great economy of space and time results from the use of account code symbols in records and reports instead of writing out account titles, which often must be quite lengthy to be clear.

Coded account classifications should be represented by a chart of accounts and a manual of accounts. A chart of accounts is a systematic listing of all account titles with the code of symbol shown for each account. A manual of accounts is an amplification of the chart of accounts in which is given, in formal manner, a statement of the contents and meaning of each account. Both the chart and the manual of accounts are indispensable to successful and satisfactory use of an account classification system of any considerable magnitude.

Expenditure accounts, because of the variety of information which they may contain, offer the greatest problem in coding. A simple system which may be acceptable for a limited number of accounts consists of a straight numerical series. An illustration of this system is as follows:

EXPENDITURE ACCOUNTS (GENERAL AND SPECIAL REVENUE FUNDS)

I. General Government

1. Legislative:
2. Municipal council or commission
3. Legislative committees and special bodies
4. Ordinances and proceedings
5. Clerk of council
6. Executive:
7. Mayor

8. Manager
9. Boards and commissions
10. Judicial:
11. Criminal courts:
12. Felonies
13. Misdemeanors:
14. Traffic
15. Unclassified

It will be noted that detail and summary accounts are included in the same series. If less detail is desired in the system, the minor classifications may be omitted and the highest classes used as account titles.

One objection to the straight serial-numbering method of coding accounts is that the symbols do not indicate the nature of the account designated. This would require frequent reference to the chart of accounts. A second objection to the straight numbering system is its inflexibility, there being no provision for insertion of new accounts without changing a large part of the code. A potent argument for the serial-numbering system is its simplicity.

Another number code may be described as a "significant-digit" system. This system designates certain digits of the code to represent specific information about each account. Under this plan, a digit code, with groupings of 0000–000, might be used as follows:

1. The left-hand group of digits would be used to indicate the fund or the group of like funds (special revenue, trust, enterprise, etc.). Blocks of numbers would be assigned to each fund or group of funds in the following manner:

   0001–1999: General fund
   2000–3999: Special revenue funds, etc.

   Thus, any left-hand group of figures of less than 2000 would indicate the general fund.
2. The two left-hand digits in this block may be used to signify the department represented by the transaction. Thus, 0400 would signify a given deparment of the general fund and 2400 a given department of a special revenue fund.
3. The right-hand two digits of the first group may be used to indicate divisions of bureaus within the department. Thus, the number 0402 signifies Division No. 2 in Department No. 4 of the general fund.
4. The right-hand group of three digits may be used to indicate major, minor, and detailed object classes. Thus, the left-hand member of the group may indicate personal services; the middle digit may indicate regular or other type of service; and the third digit may indicate whether the service is for regular, overtime, or extra compensation.

As an example of this system of coding, the symbol 0402–111 might represent a transaction concerned with regular salary for a full-time

employee in the Division of Accounts, Department of Finance, of the General Fund.

A scheme combining numbers and letters is favored by many. It resembles the significant-digit method except that letters also are employed as indicators, possibly reducing errors caused by the confusion of digits. Using this method and assuming entirely separate sets of symbols for the various funds, a given account of the general fund might be coded as 2107–C43, which might represent the following expenditure:

Function: Public Safety (2000 block)
Department: Police (2100)
Bureau: Criminal Identification (2107)
Character: Current expenses (A–C letter block, for example)
Main Object Class: Materials and supplies (C)
Minor Object Class: Photographic supplies (4)
Detailed Object: Films (3)

As is true for the significant-digit system of identification, a complete classification chart and manual should be provided for reference use with the combined number and letter system.

Classification of expenditures for funds other than general and special revenue

As indicated previously, expenditure classification is of primary importance for general and special revenue funds. Most other types of funds engage in such narrowly specialized types of activities that comprehensive classification of their expenditures on all the bases described above is not possible. Some utility funds require a large number of expenditure accounts, but the nature of utility operations requires a materially different classification. Utility expenditure classifications will be discussed in Chapter 12. Expenditures of all funds may be classified by character. Object classification may be applied to most expenditures of other funds except agency and sinking funds. Organizational units are of no consequence for some funds, so that basis of classification is of no importance for them.

Expenditure procedures

Accounting procedures employed in fund accounting reflect a number of influences: legal and other requirements, variety and volume of transactions, and experience and training of accounting personnel. Legal and other similar requirements are influential not only for their direct pronouncements upon accounting procedures but also for the organizational structures which they prescribe or allow. Accounting procedures are likely to be much more effective if the purchasing, accounting, and financial operations are entirely separated from one another than if all or any two of them are combined under the authority of one individual or department. The reason for separation is to provide for better internal

control as a means of reducing errors and fraud. In the following brief discussion of expenditure accounting procedure for materials or supplies, the recommended arrangement of complete separation of purchasing, accounting, and finance will be assumed.

1. An expenditure is likely to have its origin with a department head or some other qualified person preparing a request or requisition for some needed article. The request may be prepared on a special form which has no other use, or it may be prepared on a form that subsequently develops into a purchase order. For present purposes, the latter case will be assumed. In whatever form adopted, the request is transmitted to the purchasing agent.

2. Upon receipt of the requisition, the purchasing agent takes such action as is required by law or other regulations. These will include locating sources of supply for the article desired and, in many cases, obtaining bids in some prescribed manner. After having converted the request into terms of monetary requirements, the purchasing agent submits it to the accounting department.

3. The purchase request must be examined by the accounting department to determine (*a*) the fund to which the expenditure, if made, would be charged; (*b*) whether the article requested is covered by appropriations or other authorizations in effect for that fund; and (*c*) whether sufficient funds are available to cover the desired purchase. If (*b*) and (*c*) are decided in the affirmative, the accounting department will enter upon all copies of the purchase request the code symbol of the account or accounts to be charged. One copy may be retained by the accounting department; and the other copies, at least one of which will be signed by the chief accounting officer, will be returned to the purchasing department. From the retained copy the accounting department will record an encumbrance or commitment against the appropriation to be charged for the purchase approved, in order that the appropriation may not be overexpended through subsequent transactions. Encumbrance accounting procedure is not a universal practice for all funds, but is useful to those that operate under fixed-amount authorizations.

4. Upon proper authentication by the purchasing agent, the requisition now becomes a purchase order and is issued to the prospective vendor. (See Illustration 5–1.)

5. When materials covered by the purchase order are received, they are thoroughly checked and examined. For this purpose, a copy of the purchase order, not showing quantities, may be used to advantage. The receiving report, in whatever form prepared, is sent to the purchasing department for comparison with the purchase order. If the terms of the purchase order have been complied with, approval of the purchase is indicated in some formal manner and transmitted to the accounting department for matching with the vendor's invoice. To insure that all necessary information is available, some governmental units supply a standard invoice form which the vendor is requested to use, even though he bills also on his own form as part of his own standard procedure.

6. In the accounting department the purchase order, the receiving report, and the invoice are compared; and if all details are found to be in order,

the claim is approved for payment. Approval of the claim may be evidenced by a formal voucher on which has been summarized all pertinent information necessary for the complete recording of the transaction, including a record of all verifications and audits. At this stage the transaction is recog-

Illustration 5–1

FORM FOR USE IN RECORDING ENCUMBRANCES FOR PURCHASES OF EQUIPMENT, MATERIALS AND SUPPLIES, CONTRACTUAL SERVICES, ETC.

COUNTY OF DARKE
PURCHASE ORDER

To *General Office Supply Co.*
Lima, Ohio

Please ship to *Darke County*
General Fund
Attn.: J. Evans, County Auditor
Greenville, Ohio
Via *Best way*

Purchase Order No. *56-904*
Date *July 7, 1969*
Requisition No. *G. F. 876*
Name of Account to Be Charged *Office Equipment*
No. of Account to Be Charged *2041-3007*

Unit	No. of Units	Description	Price Per Unit	Total
Each	*Three*	*Adding Machine, Universal, Model N-673-4*	*$318.00*	*$954.00*
			Total	*$954.00*

Terms: *n/30*

Approved for Sufficiency of Funds:	Signed:
Harold Barbour	*Joseph Evans*
(Comptroller)	(County Auditor)
Date *July 10, 1969*	Date *July 10, 1969*

nized as an expenditure and is so recorded, with a credit to a liability account such as Accounts Payable or Vouchers Payable. Having been recognized as an actual liability, the transaction has emerged from the contingent stage; to record this fact requires an entry reversing the encumbering or committing entry described in item 3, above. As conclusive evidence of approval for payment, the accounting office may prepare and issue a warrant,

ordering the treasurer or other financial officer to make payment of the claim represented by the voucher. If considerable delay is ordinarily expected in the payment of vouchers, the liability may be transferred from Vouchers Payable to Warrants Payable. Details of liability accounting will be covered in Chapter 14.

7. Upon receipt of the warrant, the financial officer will make payment of the claim. The warrant may be of such form that by insertion of additional information and signature by the financial officer, it becomes a bill of exchange and is issued to the creditor. On the other hand, the warrant may be exclusively an order for payment, requiring a separate document for the bill of exchange.

8. Upon receipt of formal evidence that the claim has been paid, the accounting officer may record the fact by debiting the liability account and crediting the appropriate cash account.

Exceptions to above procedures

The foregoining procedures represent only an outline of the significant steps in expenditure accounting. Not only are they subject to numerous variations, but also they are not applicable to all situations. Perhaps the chief exception is found in the method of accounting for costs of personal services. The basis for this exception is twofold, as follows:

1. Liability for personal services is not based upon invoices but upon personnel and payroll data. First among these are salary and wage ordinances or other schedules of rates for payment to employees. Second are the records of time or other factors determining employees' claims for payment. On account of the complexity of employee-employer relationships, payroll records must show in exact detail the claims of employees and the methods by which they were discharged. These details include, with the rate of pay, such items as credits and charges for sick and annual leave, absences, leave without pay, overtime, changes in grade of employment, automatic pay increases without change in grade, withholdings, and payments on retirement contributions and tax liabilities, etc.

2. Because amounts appropriated for personal services may not be used for other purposes, and because the amount to be spent for personnel is likely to be fairly uniform from month to month, many governmental units make no entries for encumbrances on account of payrolls but record the liability initially when the periodic payrolls become due. Dispensing with encumbrances for payrolls may be acceptable practice under the conditions assumed above; but if employment by the governmental unit fluctuates materially, encumbrance procedure should be followed, possibly on a quarterly basis, to give a better representation of payroll funds required, or possibly of payroll appropriations which by approval of proper authorities might be diverted to other uses. (See Illustration 5–2.)

A second exception to the procedures described above may be found in accounting for amounts due to other funds—for example, an amount due to another fund for supplies transferred. Special provisions may be

established for handling such transactions without passing them through the Vouchers Payable account. Obviously, claims on account of utility and other contractual services would require handling different from that for the purchase of tangibles.

Illustration 5–2

FORM FOR USE IN RECORDING ENCUMBRANCES FOR TRANSACTIONS OTHER THAN PURCHASES OF EQUIPMENT, MATERIALS AND SUPPLIES, CONTRACTUAL SERVICES, ETC.

CITY OF GREENVILLE

MISCELLANEOUS ENCUMBRANCE DOCUMENT

	No. 38
To *John C. Nelson*	Date *October 14, 1969*
206 Monroe St.	Reference *Correspondence*
Greenville, Ohio	Name of Account to Be Charged
Explanation *Judgment for*	*Judgments and Losses*
damages to property	Account No. *1076-0436*

Description	Amount
Case No. 76, September, 1969, term, Darke County Circuit Court	*$293*
Total	*$293*

Approved for Sufficiency of Funds: *Harold Barbour* (Comptroller)	Signed *Joseph Evans* (Auditor)
Date *October 17, 1969*	Date *October 17, 1969*

A third possible occasion for substantial deviation from the general procedures outlined above occurs when a central stores unit is maintained. If the unit is operated by an intragovernmental service fund, purchases of equipment, materials, and supplies will be accounted for according to intragovernmental service fund procedures, thus narrowing the range of expenditures to be handled by other funds. Furthermore, a central stores department may be incorporated as part of a general or special revenue fund operation, in which case the requisitioning and purchasing procedure would differ from that described in the general plan.

Finally, the special nature of some types of funds may prevent their use

Illustration 5–3

TOWN OF LYNN

Appropriation and Expenditure Ledger

Code No.: 0605–03
Fund: General
Function: General Government
Department: Law
Activity: Criminal Investigation
Object Class: Commodities
Character: Current Expenses

Year: 1969

Month and Day	Explanation	*Encumbrances*				*Expenditures*			*Appropriations*	
		Order or Contract No.	*Increase*	*Decrease*	*Balance*	*Voucher No.*	*Amount*	*Total*	*Amount*	*Unencumbered Balance*
Jan. 2	Budget								$4,000	$4,000
7	Stationery	25	$30		$30					3,970
25	Chemicals	74	55		85					3,915
29	Stationery	25		$30	55	165	$ 28	$ 28		3,917
Feb. 8	Wax recording cylinders	105	20		75					3,897
Dec. 12	Typewriter supplies	804		12	0	3412	13	3,720		280
28	Transfer								200*	80
31	To Operating Clearance†								3,800*	0
31	To Fund Balance						3,720*	0		

* Red.
† If Operating Clearance account is not used, both Expenditures and Appropriations should be closed to Fund Balance.

of the general expenditure procedure suggested for materials and supplies. Among these funds are, especially, those of the capital projects, debt service, trust, and agency types.

Ledger form for appropriations and expenditures

A variety of forms is employed in accounting for appropriations and expenditures. The exact composition of the form adopted will depend largely upon the legal, accounting, and reporting requirements under which the fund is being operated, not to mention the type of recording equipment to be used. Minimum requirements would seem to include provision for the following information:

1. Complete identification of the account as to such of the following items as are pertinent:
   a) Fund.
   b) Organizational unit.
   c) Function.
   d) Activity.
   e) Object class.
   f) Character.
   This information may be given in both verbal and code form.
2. Amount of appropriation for the purpose represented by the account.
3. Expenditures to date which are chargeable to the amount appropriated.
4. Encumbrances on account of orders, contracts, or other forms of commitment which have not reached the ascertained liability stage.

From the minimum requirements described in items 2, 3, and 4, above, the form may be expanded to as many as 10 or 11 columns, to show payments and various kinds of balances frequently used in operation of the account. Other modifications or additions may be made to provide for special requirements attending use of the record. A simple form of appropriation ledger account is shown in Illustration 5–3.

Closing appropriation expenditure accounts

The procedures followed in closing appropriation expenditure subsidiary accounts are subject to numerous variations, depending upon the number and purposes of money columns included in the subsidiary ledger form and upon the inclination and preference of the responsible accountant. Notwithstanding variations in technique of expenditures closing entries, the prime objective remains the same, namely, to transfer the balance to Fund Balance or whatever other account is chosen to receive it. As an example of what is meant by the foregoing reservation, the balance of an indeterminate appropriation (see Appendix 1) may be transferred to some such title as Unencumbered Appropriations, to carry it, intact, into the subsequent period.

For explanation of the basic principles of expenditures closing entries, let it be assumed that the subsidiary ledger accounts for the X and Y

appropriations appeared in the following summary form at the end of a fiscal period:

X

Appropriations *Cr.*	*Encumbrances* *Dr.*	*Expenditures* *Dr.*	*Unencumbered* *Unexpended Balance*
$30,000	$2,000	$27,500	$500

Y

Appropriations *Cr.*	*Encumbrances* *Dr.*	*Expenditures* *Dr.*	*Unencumbered* *Unexpended Balance*
$60,000	$4,000	$56,200	$200*

* Debit.

It should be noted that, although the amounts under Appropriations and Expenditures are net totals, the Encumbrances figure in each is the *difference* between encumbrances recorded and encumbrances that have passed into the expenditure stage. To close the above ledger accounts, the following entry might be made:

Appropriations	90,000	
Encumbrances		6,000
Expenditures		83,700
Fund Balance		300

Explanation:

Item	*Appropriations* *Dr.*	*Encumbrances* *Cr.*	*Expenditures* *Cr.*	*Fund Balance* *Cr.*
X	$30,000	$2,000	$27,500	$500
Y	60,000	4,000	56,200	200*
Totals	$90,000	$6,000	$83,700	$300

* Debit.

After the above compound closing entry has been posted, the subsidiary ledger accounts for the X and Y appropriations will appear as follows:

X

Appropriations *Cr.*	*Encumbrances* *Dr.*	*Expenditures* *Dr.*	*Unencumbered* *Unexpended Balance*
$30,000	$2,000	$27,500	$500
30,000*	2,000*	27,500*	0

* Negative entries.

Y

Appropriations Cr.	*Encumbrances* Dr.	*Expenditures* Dr.	*Unencumbered Unexpended Balance*
$60,000	$4,000	$56,200	$200*
60,000*	4,000*	56,200*	0

* Negative entries or negative balance.

It will be recalled from an earlier statement that the primary requirement of appropriation expenditure closing entries consists of transferring unused balances to Fund Balance. Insofar as the subsidiary accounts are concerned, they could be reduced to zero balances by debiting either Appropriations or Expenditures for their respective balances. Thus, the X Appropriations account, illustrated previously, could have been reduced to a zero balance by entering $500 as a debit in either the Appropriations credit column or the Expenditures debit column. This method, although somewhat crude, is obviously a timesaving short cut and may be used at the discretion of persons responsible for accounting procedures.

That part of the illustrative closing entry which credited Encumbrances, thereby reducing the amount of credit to Fund Balance, left the Reserve for Encumbrances on the books as a reservation of assets to cover purchase orders or other commitments outstanding. Obviously, the reservation for outstanding encumbrances could have been effected separately, as explained in Chapter 3, by the following entry:

Fund Balance		6,000	
Encumbrances			6,000
Encumbrances subsidiary credits:			
X	$2,000		
Y	4,000		
Total	$6,000		

When the closing entries for appropriation expenditures include subsidiary as well as general ledger accounts, which is usually the case, separate closing of Encumbrances is not recommended. Time, space, and effort may be conserved by including the operation with that of closing Appropriations and Expenditures. Illustration 5–3 shows typical entries in an appropriations expenditure account.

Expenditure reports

The desired end product of expenditure accounting is control. Estimation through budgeting, analysis by groups and classes, recording in accounts, and, finally, preparation of formal expenditure statements have the ultimate purpose of direction and control.

Expenditure statements take a number of forms, depending upon the intentions of those persons responsible for the preparation thereof, reflecting particularly their wishes as to what aspects of expenditures are to be set forth in a given statement. Some types of funds with a limited range of

expenditures—debt service funds, capital projects funds, agency funds, and some trust funds, in particular—utilize special forms of statements which will be described in the chapters devoted to those funds. General and special revenue funds, because of the wide range of activities they normally serve, require much more attention to expenditure statements; and to funds of those types the following paragraphs are especially applicable.

Fund administrators have need for both interim and terminal statements. Interim statements serve the primary purposes of showing whether the fund is apparently being operated within its budget allowances, whether curtailments appear to be necessary in the future, or whether transfers or additional appropriations should be sought. A secondary purpose of interim expenditure statements is to aid in the preparation of

Illustration 5–4

TOWN OF LYNN
Operating Fund
Statement of Appropriations for This Year, Expenditures and Encumbrances This Year to Date and Same Day Last Year, and Unencumbered Balances This Date
July 31, 1969

Function and Organization Unit	*Appropriations*	*Expenditures and Encumbrances*		*Unencumbered Balance*
		This Year to Date	*Last Year Same Date*	
General government:				
City council	$ 3,000	$ 1,750	$ 1,750	$ 1,250
Mayor's office	$ 9,080	$ 5,360	$ 4,930	$ 3,720
Finance department:				
Bureau of Accounting	$ 12,600	$ 8,050	$ 7,390	$ 4,550
Other bureaus (detail)	17,800	9,410	8,740	8,390
Total finance department	$ 30,400	$ 17,460	$ 16,130	$ 12,940
City courts:				
Judges	$ 4,800	$ 2,800	$ 2,450	$ 2,000
Other divisions (detail)	7,030	4,660	5,300	2,370
Total city courts	$ 11,830	$ 7,460	$ 7,750	$ 4,370
Other departments and divisions (detail)	$ 10,450	$ 7,060	$ 34,910	$ 3,390
Total general government	$ 64,760	$ 39,090	$ 65,470	$ 25,670
Other functions and units (detail)	$430,880	$260,110	$205,380	$170,770
Total Operating Fund	$495,640	$299,200	$270,850	$196,440

the following year's budget. This is true because a budget for a given year is likely to be prepared some months before the year begins; and to determine new revenue requirements for the following year, it is necessary to know how much balance (or possibly deficit) will be carried over from the current year. Such a determination has a greater degree of accuracy if it is based upon a formal statement of operations for the year to date.

Interim statements

Whatever details may be incorporated in interim expenditure statements, the main divisions will consist of the total amount available for the year, the amount of expenditures and encumbrances to date, and the balance available for the remainder of the year. One variation of that structure is the addition of current-month figures for expenditures and encumbrances; whereas another provides for showing figures for the comparable period last year, this latter variation having special value in connection with expenditures subject to seasonal fluctuation.

The statement shown in Illustration 5–4 is not a standard or legally prescribed form. It merely exemplifies the significant general divisions of an interim expenditure statement. The contents and arrangement may be modified in many ways to suit individual requirements. Instead of appearing in total only, expenditures and encumbrances may be shown separately and then totaled. Unencumbered balances at this date in the preceding year may be added to the statement. Instead of showing figures by function and organization unit, the statement may analyze expenditures according to the other bases of classification, such as activity, object, or character, or according to any combination of the five bases mentioned. The exact form and arrangement of the statement, to repeat, should be determined by what information it is intended to show and what emphasis is desired for the various parts.

Terminal statements

Terminal statements of expenditures, that is, those prepared at the ends of fiscal periods, serve three major purposes, as follows:

1. They show in detail the manner in which the governmental unit administration has conformed or endeavored to conform to the authorizations granted it by the legislative body.
2. They form the basis for judging the efficiency and wisdom with which taxes and other revenues have been used by organizational units and for various purposes such as functions, activities, objects, etc.
3. They are indispensable in the preparation of future years' budgets.

As with interim statements, terminal expenditures statements are found in many different forms, reflecting differences in what governmental administrators wish to show and to some extent differences in laws under

which governmental reporting is done. Further resembling interim statements, terminal expenditure statements show in general what was available or authorized, what was spent and for what purposes, and what remained at the end of the year. A form of expenditures statement reporting by function, activity, and object class is shown in Illustration 5–5.

Illustration 5–5

TOWN OF LYNN
Operating Fund
Statement of Appropriations Compared with Expenditures and Encumbrances
for the Year 1969

Function, Activity, and Object	*Appropriations*	*Expenditures*	*Unexpended Balance*	*Encumbrances*	*Unencumbered Balance*
General government:					
Legislative:					
Personal services	$ 6,000	$ 6,000	...	...	...
Supplies	1,250	1,060	$ 190	$ 130	$ 60
Total legislative	$ 7,250	$ 7,060	$ 190	$ 130	$ 60
Executive:					
Personal services	$ 15,600	$ 15,480	$ 120	...	$ 120
Supplies	480	420	60	$ 80	20*
Other services and charges	960	910	50	40	10
Total executive	$ 17,040	$ 16,810	$ 230	$ 120	$ 110
Other activities and objects (detail)	$ 13,070	$ 12,660	$ 410	$ 360	$ 50
Total general government	$ 37,360	$ 36,530	$ 830	$ 610	$ 220
Other functions, activities, and objects (detail)	$631,080	$622,490	$8,590	$6,410	$2,180
Total Operating Fund	$668,440	$659,020	$9,420	$7,020	$2,400

* Red.

Concerning the statement in Illustration 5–5 and other expenditure statements covering a complete fiscal year, the following observations are noteworthy:

1. Encumbrances outstanding at the end of a fiscal year should receive careful scrutiny. Large amounts of encumbrances at the closing date may evidence an effort to use all appropriations without respect to real need, as grounds for requesting equal or larger appropriations in years to come.

2. Reserves for encumbrances carried over from a peceding period must be included with appropriations, under a modified heading of "appropriations

and reserves for encumbrances," or, if preferred, may be incorporated in a separate section of the statement following the appropriations section.

Sources of information for expenditure statements

It has been made clear that expenditure statements may take numerous forms, with data grouped and classified in a variety of ways to meet special needs and requirements. Obviously, it would be entirely impracticable to maintain controlling accounts for the several major and minor groups of expenditure data required for statement purposes. This is not to say that controls may not be kept for groups of data if circumstances make such a device feasible. Expenditure ledger accounts are likely to be kept for object classes, one account for each object class under each different combination of higher classifications. To illustrate, let it be assumed that a given ledger account bears the following identification:

Code No.____________
Function: General Government
Organization Unit: Department of Finance—Bureau of Assessment
Activity: Appeals
Character: Current Expense
Object: Personal Services

Only transactions conforming to all the elements in the heading or description would be recorded in this account. Any transaction about which any one of the elements differs would require a separate ledger account. But in place of controlling accounts for the major and minor classes, separation and grouping would be accomplished by arrangement of ledger sheets in books, files, "tubs," computer records, or whatever physical form the ledger may take. Thus, all detail accounts captioned "General Government" would be found in one section. Within that section, all accounts identified as "Department of Finance" would be found together in a subsection, and so on through other classifications. It is seen, therefore, that in the preparation of statements the first step is summarization and recapitulation of information into such arrangements as best fit the statement form to be used.

Application of electronic and mechanical equipment to the processing and summarization of accounting data has brought about far-reaching changes in the form of financial records and statements; yet the subject matter is not fundamentally different. Records and statements of revenue funds are no exception to the foregoing generalization.

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QUESTIONS

1. In a certain governmental agency, purchase orders and other commitment documents were charged against the unencumbered, unexpended balance of the proper appropriation before the documents were approved and signed by the chief fiscal officer. What do you judge to have been the motive back of that procedure?
2. A governmental agency sends to its receiving room, for use in "checking in" shipments received, a copy of the purchase order with quantities and possibly money amounts missing, but with description of articles remaining. Why the omission of quantities?
3. A comparative statement of expenditures by a governmental unit for two successive years showed that certain kinds of expenditures were materially less in the second year than in the first. State three different possibilities that might account for the reduction.
4. The uniform accounting manual provided for an important class of governmental units of the United States contains one classification of expenditures designated as "Functions or Activities." Comment on that heading.
5. What undesirable result or results may come about from a highly detailed breakdown of expenditure accounts, such as major object accounts divided into minor object accounts, with the latter analyzed into other titles called "cost accounts"?
6. It is said that a potentially good financial statement has little value without intelligent interpretation. Explain.
7. What are some kinds of expenditures made by a governmental unit which are not initiated by a purchase order and for which some other form of commitment document should be used?
8. What type of expenditure report, that is, what basis of classification, would reveal purchases of unusual amounts of certain items? Unusual amounts of expenditures by certain departments?
9. Is it true that expenditure of more in a given year than has been appropriated for that year will result in a cash overdraft? Explain.
10. For a certain governmental unit an expenditures statement prepared on the cash basis showed $580,650 for personal services. A similar statement prepared on the accrual basis showed $591,110. Explain the probable cause or causes of difference between the two amounts.

PROBLEMS

1. Some governmental units maintain an object-finding list, which is a list of objects and services commonly purchased by the unit, with a showing of the approved classification for each object or kind of service. Under appropriate headings—personal services, supplies, other services and charges, and capital outlays—list each of the following items related to county government:

Purchase of typewriter
Burial of service veterans
Travel to conventions
Payments to sheriff for board of prisoners
Transfer of cash to debt service fund
Rental of postage meter
Cost of having postage put into postage meter
Cost of engineering and management consultant services
Public accountants' fees
Street sweeping machine
Vacation pay to employees
Clothing for persons committed to mental institutions
Gas bills for county jail
Agricultural supplies for county infirmary
Premiums on officials' fidelity bonds
Fees for county officials' membership in professional organizations
Interest on borrowed money
Salaries—regular help
Medical services for county prisoners
Plumbing service for damage done by prisoners
Salaries—extra help
Gasoline
Costs of court cases venued to other counties
Law books and services
Radar equipment—sheriff's office
Repairs to jail heating plant under maintenance contract
Cost of judgment for damages to private property
Cost of uniforms for sheriff and deputies
Telephone and telegraph tolls
County's share of FICA payments
Light bulbs
Fire truck
Rent of post office box
Printing of legal notices
Payments to jurors

2. Below are listed the names of various functions, activities, object classes, character classes, and organizational units. For each one, identify its classification according to the foregoing groups.

Inspection of weights and measurements
Current expenses
Highways and streets
Other services and charges
Garbage collection service
State highway commission
Transportation of pupils
State supreme court
Preparation of tax bills
City court
County assessor's office
Supplies
Snow and ice removal
Instruction
Inspector of weights and measures
Feeding of prisoners
Personal services
Fire fighting
Crime detection laboratory
Culture—recreation
General government
County welfare department
Public safety
Laboratory operation
Control of communicable diseases
Accident investigation
Education
Capital outlays
Health

3. The city of Mt. Vernon routes all transaction for buying of commodities and services through three departments: purchasing, accounting, and fi-

nance. Several events in the history of a purchase transaction are shown below. Some of them require no formal accounting entry, but others do. You are required to make journal entries for those transactions which require it. Omit explanations but show the date and number for each entry journalized.

(1) On January 12, 1969, bids were requested on a piece of equipment to be purchased for the street fund. Availability of an unencumbered unexpended appropriation for the purchase previously had been ascertained.
(2) After consideration of bids received it was decided to accept that of the Andover Manufacturing Co., at a price of $4,315. A purchase order was prepared and sent to the accounting department on January 27. Availability of funds was again ascertained; the purchase order was approved on February 1 and returned to the purchasing department, which mailed the order the next day.
(3) A shipping notice was received from Andover on February 12 and the goods were received on the 18th.
(4) Copies of the invoice were received by the accounting department on February 17, followed on February 20 by copies of the receiving report for the equipment. All details of the purchase having been found to be in order, the invoice was approved for payment on February 24 and sent to the finance department on the same day.
(5) A "paid" copy of the invoice was received from the finance department on February 27.

4. The town of Dubois employs a system of quarterly allotments to aid in control of its general fund expenditures.

For a given year estimated revenue was budgeted at $390,000 and estimated expenditures at $370,000.

Revenue collected in cash during the year totaled $394,000.

For the first quarter, departments financed by the general fund received total allotments of $86,000. By the end of the quarter, expenditures totaling $81,000 had been reported. (Credit Cash for expenditures.)

Towards the end of the year it became apparent that additional appropriations would be required, and a total of $15,000 was added to the amount already appropriated.

Total allotments for the last three quarters amounted to $297,000.

Also for the last three quarters departments reported expenditures totaling $299,000.

You are required to do the following things, employing journal entries or T accounts and direct posting. Use of journal entries does not preclude the supplementary use of accounts.

a) Record the legislative body's budget action. Use Fund Balance.
b) Record collection of annual revenue in total.
c) Record the first quarter allotment.
d) Record the first quarter expenditures.
e) Record the additional appropriation.
f) Record the allotment for the last three quarters.
g) Record expenditures reported for the last three quarters.
h) Make entries to close the year's temporary accounts.

5. X State Highway Commission prepares for its general fund a statement designed to show the ratio between the amount of funds remaining for the period and the amount of time remaining in the period. The informa-

tion given below represents an imaginary set of figures at the end of the first third of a fiscal year.

X STATE HIGHWAY COMMISSION
General Fund
Total Authorizations, Total Fund Remaining, and Ratios
June 30–October 31, 1969 (percent of year remaining, 66⅔)

Functions and Objects	*Total Authorization*	*Funds Remaining* *Amount*	*Funds Remaining* *% of Total Authorization*	*Ratio of Funds Remaining to Unexpired Portion of Fiscal Year*
Maintenance:				
Personal services	$6,500,000	$3,400,000	52.3	
Contractual services	1,282,000	527,000	41.1	
Commodities	11,000	8,000	72.7	
Other general expenses	27,000	10,000	37.0	
Capital outlay	36,000	11,000	30.6	
Total Maintenance	$7,856,000	$3,956,000	50.4	

(A common "functional" expenditure classification in state highway accounting consists of Construction, Maintenance, and Administration. This is not consistent with the NCGA classification which consists of eight basic functions. Also, the object classification is different.)

You are required to do the following things:

a) Compute the ratio of the funds remaining, to the portion of the period remaining, for each object. Carry to nearest whole percent.

b) Assume that use of funds varies directly with passing of time and state the theoretically desirable percentage for each item, to be shown in the "Ratio" column.

c) State what management should do upon noting that some remaining balances are below the theoretically desirable ratio.

6. X State Highway Commission annually compares estimated and actual expenditures. For fiscal 1969 the following information is shown:

X STATE HIGHWAY COMMISSION
General Fund
Comparative Statement of Estimated and Actual Expenditures
By Function and Object, Fiscal Year Ended June 30, 1969

Functions and Objects	*Estimated*	*Actual*	*Excess–Deficiency* Actual Compared with Estimated* *Amount*	*Percent*
Construction:				
Personal services	$ 16,000,000	$ 15,300,000		
Contractual services	5,000,000	5,100,000		
Commodities	35,000,000	34,500,000		
Other general expenses	2,000,000	1,600,000		
Capital outlay	52,000,000	51,300,000		
Grants, claims and shared expenses	2,000,000	2,000,000		
Other expenditures	2,000,000	1,500,000		
Total construction	$114,000,000	$111,300,000		

Maintenance:		
Personal services	$ 23,000,000	$ 22,600,000
Contractual services	7,000,000	6,800,000
Commodities	12,000,000	12,700,000
Other general expenses	4,000,000	3,500,000
Capital outlay	13,000,000	13,000,000
Other expenditures	2,000,000	1,800,000
Total maintenance	$ 61,000,000	$ 60,400,000
Administration (details omitted):	$ 14,000,000	$ 13,611,000
Total All Functions and Objects	$189,000,000	$185,311,000

You are required to do the following things:

a) Compute the excess or deficiency, amount and percent, for each object and function. Carry percentages to tenths of a percent.

b) In some states, unused amounts of authorizations for maintenance and administration revert to construction, to be used in the next biennium in addition to funds appropriated for construction in that year. Suppose that June 30, 1969, was the end of a biennium and state how much, if any, reverted to construction from fiscal 1969.

TOWN OF LOSANTSVILLE

General Fund—Appropriation Expenditures, Office Supplies, 1969

Purchase Order No.	*Explanation*	*Appropriations*	*Encumbrances*		*Expenditures*	*Unencumbered Unexpended Balance*
			Increase	*Decrease*		
	Budget	$3,000				$3,000
370	Purchase—duplicating supplies		$ 90			2,910
395	Purchase—stationery		250			2,660
	Contract—telephone tolls				$ 63	2,597
370	Invoice			$ 90	90	2,562
420	Purchase—light bulbs		35			2,562
395	Invoice			250	245	2,562
	Refund of 1968 expenditure	10				2,572
486	Purchase—typewriter		135			2,437
590	Purchase—filing supplies		45			2,392
	Supplies transferred to water fund	15				2,407
486	Invoice			140	140	2,407
420	Invoice			35	35	2,372
	Contract—window-washing service				50	2,322
640	Purchase—forms and records		20			2,302
	Refund on purchase order No. 370	2				2,304
695	Purchase—redecorating walls		260			2,044
590	Invoice			45	45	2,044
	Appropriation transfer to office salaries account	500*				1,544
695	Invoice			260	265	1,549
720	Purchase—desk, chairs, tables		1,535			14

* Red.

7. An auditor engaged in auditing the municipal accounts of the town of Losantsville came upon the following record in the town's general fund expenditures ledger (page 124). Some errors were readily apparent to him and he decided to make a detailed analysis of the account. Among other things he observed that some entries had been incorrectly applied to the balance of the account and that a number of them did not belong in the account at all.

   The general fund manual of accounts described Office Supplies as "tangible items of relatively short life to be used in a business office."

   You are required to state what you think the auditor's decision should be on each of the following points:

   a) Amount of net appropriation for office supplies for 1969.

   b) The valid amount of encumbrances outstanding against the appropriation at the end of the year.

   c) The net amount of expenditures made during the year which were properly chargeable to the appropriation.

   d) The unencumbered unexpended balance of the appropriation at the end of the year.

8. At December 31, 1968, the town of Creighton current fund had the following after-closing trial balance:

	Debit	*Credit*
Cash	$ 35,000	
Taxes receivable—prior years	48,000	
Estimated uncollectible taxes—prior years		$ 26,000
Materials and supplies inventory	19,000	
Accounts payable		18,000
Deferred revenues—1969 taxes		570
Reserve for materials and supplies inventory		19,000
Reserve for encumbrances		3,100
Unencumbered appropriations		1,200
Fund balance		34,130
	$102,000	$102,000

(1) The regular 1969 budget, with estimated revenue summarized by source classes and appropriations by functions, was as follows:

Estimated revenues:		
Taxes	$667,000	
Licenses and permits	27,000	
Intergovernmental revenue	190,000	
Other sources	83,000	
Total		$967,000
Appropriations:		
General government	$120,000	
Public safety	391,000	
Highways and streets	207,000	
Sanitation	182,000	
Other functions	63,000	
Total		$963,000
		$ 4,000

(2) The town board enacted a special appropriation ordinance for the 1968 reserve for encumbrances and the unencumbered 1968 appropriation. Of the first, $2,700 was for highways and streets and the remainder for sanitation. All of the unencumbered 1968 appropriation was for sanitation. (It is simpler if each of the appropriations, $3,100 and $1,200, is recorded in a separate entry.)

(3) Encumbrances issued against the various functional appropriations during the year were as follows:

General government	$ 12,000
Public safety	73,000
Highways and streets	151,000
Sanitation	56,000
Other functions	59,000
Total	$351,000

(4) A current-year tax levy of $690,000 was recorded, with uncollectibles estimated at $25,000.

(5) During 1969 tax collections were $12,000 on prior years' levies and $644,000 on the current year's levy.

(6) Personnel costs, for which no encumbrances had been recorded, were credited to Accounts Payable during the year in the amount of $598,500, distributed as follows:

General government	$104,000
Public safety	311,000
Highways and streets	56,300
Sanitation	124,300
Other functions	2,900
Total	$598,500

(7) The supplies inventory is a running or perpetual inventory type, and during the year $187,100 worth of supplies were purchased (credit Accounts Payable). Encumbrances for estimated materials and supplies requirements are recorded for the various functions at the beginning of the year. As supplies are drawn from the inventory their cost is debited to Expenditures. Since the issues are not based on purchase orders of specific amounts, the amounts removed from Encumbrances and Reserve for Encumbrances are based on the cost of the goods issued.

(8) Issues of supplies at cost for the various functions during the year were as follows:

General government	$ 7,000
Public safety	58,000
Highways and streets	32,000
Sanitation	43,000
Other functions	41,000
Total	$181,000

(9) Other purchases of services and commodities on account during the year were:

	Cost	*Amount of Encumbrance*
General government	$ 4,200	$ 4,400
Public safety	14,800	14,300
Highways and streets	117,400	118,100
Sanitation	13,300	13,000
Other functions	6,500	6,800
Total	$156,200	$156,600

(10) Revenue other than taxes collected during the year consisted of $28,000 licenses and permits; $185,000 intergovernmental revenue; and $66,000 from other sources.

(11) $10,500 of prior years' taxes were written off and $2,200 of current year's taxes

were abated (canceled) to correct errors. (Latter not charged to estimated uncollectible account.)

(12) Payments on accounts payable totaled $938,800.

(13) A physical inventory of materials and supplies as of December 31, 1969, showed a total of $27,400. The materials and supplies inventory was adjusted accordingly, as was the Reserve for Materials and Supplies Inventory.

(14) The 1969 taxes collected in 1968 were recorded as revenue, and cash totaling $1,700 was received in prepayment of 1970 taxes. (Record as two separate transactions.)

(15) No action was taken during 1969 on an appropriation of $1,300 for a special purchase for one of the other functions. The town board voted to transfer the special unencumbered item of $1,300 to 1970.

You are required to do the following things:

a) Establish T accounts and open a ledger for the town of Creighton current fund for December 31, 1968.

b) Make journal entries for the 1969 transactions and post to the ledger accounts. Make entries only for the general ledger accounts.

c) Prepare a trial balance for December 31, 1969.
(Optional: the above things may be done on a columnar work sheet if so desired.)

Optional additional assignment:

d) In lieu of formal expenditure subsidiary ledger accounts, prepare a form as illustrated below for each of the functions and make the appropriate subsidiary entries in them. A good procedure is to go through the transactions and make all the entries for one function before making any for the others. This is a problem-solving procedure.

OTHER FUNCTIONS

Transaction	*Appropriation*	*Encumbrance*	*Expenditure*	*Unencumbered Unexpended Balance*
1	$63,000			$63,000
3		$59,000		4,000
6			$ 2,900	1,100
8		(41,000)	41,000	1,100
9		(6,800)	6,500	1,400
15	(1,300)			100
Balances	$61,700	$11,200	$50,400	$ 100

State what relationship exists between the balances in each functional ledger account.

e) State what relationships there are between certain amounts in your trial balance and amounts in the subsidiary ledger, including the summary for Other Functions.

CONTINUOUS PROBLEM

5–L. This problem continues the series of "L" problems concerning the city of Bingham.

You are required to:

a) Open and post, in as much detail as possible, Appropriation Expenditures subsidiary ledger accounts for the general fund. Use the

pertinent information from Problems 2–L and 3–L. An appropriate form is illustrated in Chapter 5.

b) Prepare in good form a statement comparing the adjusted Appropriations budget with the expenditures and encumbrances for the first six months of the year.

c) Prepare in good form an interim balance sheet for the general fund as of December 31, 19—.

d) Below are described transactions of the second six months of the year. Record each transaction in the proper general journal and post the general ledger accounts. You are not required to post the subsidiary ledger accounts for the second six months.

(1) Purchase orders, contracts, and other commitment documents totaling $823,000 were issued.
(2) Invoices for services and supplies were received and approved for payment: Actual, $908,500; Estimated, $903,000.
(3) Payrolls were computed, liabilities for withholdings were recorded, and the net paid in cash, as follows: General Fund—Gross Pay, $842,000; Income Tax Withheld, $141,300; FICA Tax Withheld, $29,700.
(4) The city's liability for FICA tax, $29,700, was recorded.
(5) Collections of the second installment of current year's taxes were $1,109,000.
(6) The general fund collected the following revenue in cash: licenses and permits, $26,000; fines and forfeits, $156,000; intergovernmental revenue, $807,000; charges for services, $50,000; and miscellaneous, $56,000.
(7) A taxpayer who had been classified as delinquent proved that he had paid general taxes of $237 when due. Audit disclosed that a former employee had embezzled $237—through oversight of the Treasurer, the employee had not been bonded. The audit also disclosed that tax bills totaling $2,586 on several pieces of property had been sent to both the present and the prior owner, and no tax bills at all had been prepared for several pieces of property—general taxes of $2,250 should have been charged. (Correct all accounts affected; do not adjust the Estimated Uncollectible Taxes account.)
(8) Tax anticipation notes issued by the general fund were paid at maturity at face amount plus interest of $5,000.
(9) The petty cash fund was reimbursed for $4,810.
(10) The general fund vouchered and paid its liability for employees' income taxes withheld, the total liability for FICA taxes, and the required contribution to the employees' pension funds, $54,500.
(11) The general fund recorded its liabilities to other funds for services received during the year, $24,000.
(12) The general fund paid vouchers in the amount of $980,000.
(13) The general fund made a long-term advance of $30,000 cash to the stores and services fund.
(14) Current taxes receivable and related estimated uncollectibles were transferred to the delinquent category. Interest and penalties accrued on delinquent taxes amounted to $11,240; of this amount it is estimated that $4,880 is uncollectible.

e) Prepare a trial balance before adjustment of the accounts of the general fund.

f) Prepare and post the necessary closing entries for the general fund.

g) Prepare in good form a balance sheet as of the end of the fiscal year, June 30, 19—.

h) Prepare in good form a statement of changes in Fund Balance for the year.

Chapter 6

Capital Projects Funds

This is a kind of fund designed to account for all resources expended in the acquisition by a governmental unit of long-term or capital assets of a relatively permanent nature, other than those acquired through expenditures of special assessment or enterprise fund assets. Notwithstanding the apparent monopolistic nature of this sort of fund, in practice there is nothing to preclude direct acquisitions of long-term assets, usually in modest amounts, by revenue funds, both general and special. Capital projects funds would not ordinarily be used to account for acquisition of machinery, equipment, etc., because such assets are not usually acquired through bond issues.

General nature of capital projects funds

Capital projects funds are readily recognizable as successors to bond funds, formerly the preponderant instrumentalities in accounting for fixed asset acquisitions. Not only are they successors to the major function of bond funds, accounting for bond proceeds: their basic structure provides the mechanics for accounting for the large and numerous grants for general fixed asset acquisition nowadays flowing from federal and state governments into local communities. Channeling general fixed asset acquisitions through one type of fund facilitates correlation of capital budgeting and capital asset acquisition and accounting. The intended result is better control.

Not all functions of bond funds have been transferred to capital projects funds. Accounting for issues of refunding bonds, previously a bond fund activity, is now assigned to the debt service category, with little or no change in the mechanics of the accounting process. Three other infrequent kinds of demands upon the resources of a governmental unit sometimes require the issuing of bonds, and in none of those cases can the operation be described as fixed asset acquisition or debt refunding. The situations referred to are, (1) the need for emergency or other extraordinary expenditures, such as for social welfare and disaster relief, and military service bonuses; (2) funding of large-sized deficits accumu-

lated by revenue funds; and (3) initial financing of intradepartmental services or enterprise funds, the debt to be liquidated by a fund other than the recipient. Thus, while the bond fund as a class is no longer recognized, these infrequent exceptions, if they occur, will exist because they are neither long-term asset nor debt refunding instrumentalities. In this chapter governmental bonds are involved only as a source of money for acquiring capital improvements. The liability aspect of bonds will be considered in other chapters.

A general practice is that each capital project constructed or acquired by a governmental unit, acting singly or through cooperation of two or more governmental jurisdictions, should be accounted for by use of a separate fund, the better to provide each participant with a properly detailed accounting of the use of its contribution. However, nothing in the nature of a capital projects fund will prevent the use of a single unit to account for two or more separate projects of a related nature if resources are provided solely within the governmental unit by a single bond issue or transfers from revenue funds. As for other forms of government financial activity, the exact structure of the accounting medium to be used should not necessarily conform to any preconceived pattern but should be designed to provide the most useful managerial and reporting results; yet adhering, in the main, to generally accepted procedures.

Legal requirements

Since a governmental unit's power to issue bonds constitutes an ever-present hazard to the welfare of its property owners in particular[1] and its taxpayers in general, the authority is ordinarily closely regulated by legislation. The purpose of legislative regulation is to obtain a prudent balance between public welfare and the rights of individual citizens. In some jurisdictions most bond issues must be approved by referendum, in others by petition of a specified percentage of taxpayers. Not only must bond issues be approved according to law but other provisions, such as method and timing of payments from the proceeds, and determination of validity of claims for payment, must be complied with. A knowledge of all details related to a bond issue is prerequisite to the avoidance of difficulties and complications which might otherwise occur.

Participation of state and federal agencies in financing capital acquisitions by local government adds further complications to the process. Strict control of how such grants are used is imperative for assuring wise use of the funds. This necessitates more or less dictation of accounting and reporting procedures to provide information necessary for proving or disproving compliance with terms of the grants. Details of the fund

[1] An issue of general bonds is virtually a mortgage upon all taxable property within a governmental unit's jurisdiction. Responsibility for payments of principal and interest on general bonded debt provides for no consideration of a property owner's financial condition, his ability or inability to pay.

structure and operation should provide for producing all the required information when it is needed.

Accomplishment of a capital acquisition project may be brought about in one or more of three different ways:

1. Outright purchase from fund cash.
2. By construction, utilizing the governmental unit's own working force.
3. By construction, utilizing the services of a private contractor.

General outline of capital projects fund accounting

A capital budget being a 3-year, 5-year, 10-year (etc.) plan of capital asset acquisitions, the segment representing a given year becomes activated by incorporating it, with any desired revisions, into the annual comprehensive budget for that year. For the specific project or projects planned for initiation in the budget year, this consists of authorizing the necessary expenditures for consummation of the project or projects and approving the setting in motion of measures designed for financing them. This will consist of one or more of: (1) authorizing a bond issue, (2) collection of contributions from other funds, or (3) receiving previously arranged grants from one or both of state and federal agencies.

Although not unanimously accepted, the present weight of authority opposes a formal recording in the accounts when a bond issue receives final approval, holding that a memorandum entry is sufficient for the occasion. Conforming to this policy, inclusion of a bond issue in financing a capital project formally does not affect accounts of the related fund until sale of the bonds.[2] If the same policy is applied to forthcoming contributions or grants from agencies and other funds, the first formal entry would be made upon receipt of cash, with a credit to Revenues. If, however, there is reason for formally recording a grant or contribution in its noncash status, a Due from ______ debit, with Revenues as the credit, would be appropriate.

It is possible for a capital project operation to be so simple that, following recommendations of the National Committee on Governmental Accounting, two entries would suffice to record its history. For illustration, let it be assumed that a bond issue is approved and sold to finance acquisition of land and a building for use by the governmental unit, the consideration being $200,000. Assuming, as recommended by the NCGA, that formal recording of the bond authorization be omitted and that the bonds are sold at par, the first entry, recording sale of the bonds, would be as follows:

Cash	200,000	
Fund Balance		200,000

[2] If for some special reason a formal record of the bond issue authorization is desired, it may be accomplished by debiting Bond Authorized—Unissued and crediting Revenues. The choice between this method and the approved one is not one of right or wrong.

Purchase of the real estate could then be recorded by this entry:

Fund Balance	200,000	
Cash		200,000

Since the two entries are mutually offsetting no closing entry is required. Had financing of the project been participated in by other funds or governmental units, the same simplicity could have been preserved by formally recording the extrafund assistance only when the cash was received, as in the first entry above. The procedures illustrated in this paragraph are shown without recommendation.

A noteworthy feature of the foregoing illustration is the omission of any record of bond liability. This omission is fundamental: the entries shown are those to be made in a capital projects fund, which is responsible for accounting for receipt of bond proceeds and their disbursement, but to no extent for payment of the bond debt. That liability will be recorded in the general bonded debt and interest group of accounts.

Also to be mentioned at this time is the fact that capital projects fund authorizations are on a *project*, not a time, basis. Applicability of the authorization is to completion of a specified project or projects, not to the time required, which may be one year, or less or more than one year. This obviates the necessity of, but does not prohibit, periodical closings. Also, encumbrance accounting must be practiced on larger projects to help prevent exceeding of the authorization.

For a more representative illustration of capital projects fund accounting let it be assumed that the town council of Bloomsburg authorized an issue of $150,000 of 5 percent bonds as partial financing of a fire station expected to cost approximately $210,000, with the estimated $60,000 additional to be contributed in equal parts by three townships. The project, to utilize land already owned by the town, was done partly by a private contractor and partly by the town's own working force. Completion of the project was expected within the current year. Transactions and entries were as shown below. For economy of time and space vouchering of liabilities will be omitted.

1. The $150,000 bond issue, which had received referendum approval by taxpayers, was officially approved by the town council.

   No formal entry is recommended by authoritative sources. (If a formal entry were made it would debit Bonds Authorized—Unissued and credit Revenues.)
2. The sum of $2,000 was borrowed from the National Bank for defraying engineering and other preliminary expenses.

Cash	2,000	
Loans Payable		2,000

3. The claim for contributions by the three townships was recorded.

Due from Other Governmental Units (or similar title)	60,000	
Revenues		60,000

(Formal recording of these claims does not seem to be imperative since authority to issue bonds was not formally recorded.)

4. Total purchase orders and other commitment documents issued for supplies, materials, items of minor equipment and labor required for the project amounted to $73,200.

Encumbrances	73,200	
Reserve for Encumbrances		73,200

5. A contract was made for certain work to be done by a private contractor in the amount of $135,000.

Encumbrances	135,000	
Reserve for Encumbrances		135,000

6. Special engineering and miscellaneous costs which had not been encumbered were paid in the amount of $1,400.

Expenditures	1,400	
Cash		1,400

7. When the project was approximately half finished the contractor submitted billing for a payment of $65,000.

Reserve for Encumbrances	65,000	
Encumbrances		65,000
Expenditures	65,000	
Contracts Payable		65,000

(This entry records conversion of a contingent liability to a firm liability, eligible for payment upon proper authentication. Contracts Payable records the status of a claim under a contract between the time of presentation and verification for vouchering or payment.)

8. Payments of $15,000 each were received from the three townships.

Cash	45,000	
Due from Other Governmental Units		45,000

9. The National Bank Loan was repaid.

Loans Payable	2,000	
Cash		2,000

10. The bond issue was sold locally, without brokerage costs, at par.

Cash	150,000	
Revenues		150,000

(If a formal entry for authorization of the bonds had been made, this entry would credit Bonds Authorized—Unissued.)

11. The contractor's initial claim was fully verified and paid.

Contracts Payable	65,000	
Cash		65,000

12. Balances due from other governmental units were collected.

Cash	15,000	
Due from Other Governmental Units		15,000

13. Total disbursements for all costs encumbered in Transaction 4 amounted to $70,900.

Reserve from Encumbrances	73,200	
Encumbrances		73,200
Expenditures	70,900	
Cash		70,900

14. Billing for the balance on his contract was received from the contractor.

Reserve for Encumbrances	70,000	
Encumbrances		70,000
Expenditures	70,000	
Contracts Payable		70,000

15. Inspection revealed only minor imperfections in the contractor's performance and upon correction of these his bill was paid.

Contracts Payable	70,000	
Cash		70,000

16. The residue of cash was refunded to the cooperating townships.

Revenues	2,700	
Cash		2,700

(This reduces the Revenues account by $2,700 of the amount which was credited to it when the claims against the townships, subsequently collected in full, were recorded.)

17. All requirements and obligations related to the project having been fulfilled, the remaining open accounts were closed.

Revenues	207,300	
Expenditures		207,300

Summary of capital projects fund accounting

The foregoing highly simplified illustration demonstrates most of the conventional transactions of a capital projects fund, although numerous variations in sequence may occur. The kinds of transactions may be characterized as follows:

1. Recording, informally or formally, the project authorization: direction to construct or acquire by purchase a specified capital asset and grant of permission to employ specified resources in doing so.
2. Providing preliminary financing through a short-term loan, if necessary.
3. Initiating activity by ordering materials and services and letting a contract.
4. Recording expenditures for materials and services and for progress in performance of the contract.
5. Liquidating liabilities for the costs mentioned in (4.), also for the temporary loan.
6. Disposing of residual assets, or obtaining money to finance a deficit, in accordance with ordinances, laws, or other restrictions applicable to the situation at hand.
7. Closing all accounts not closed as a result of recording the foregoing operations.

Procedures when bonds are sold at a premium or a discount

In the preceding illustration, the town of Bloomsburg sold its bonds at par and spent all the proceeds. This simplified the related accounting but does not represent prevailing experience; sale at a premium or discount is far more common. Using assumed amounts and observing currently authoritative practice, sale of $500,000 par value of bonds at a premium of $9,000 might be recorded as follows:

Cash	509,000	
Revenues		500,000
Premium on Bonds		9,000

Accounting for the premium as a separate item implies that the amount is not available for use in consummating the purpose of the fund but must be transferred to another fund: one for paying principal and interest on the debt or any other fund designated by proper authority. If net proceeds of the bond sale are, in fact, available for expenditure by the capital projects fund the amount of premium might be added to the Revenues credit, or at least transferred to it at some future date if needed.

Had the $9,000 been a discount the entry might have been:

Cash	491,000	
Discount	9,000	
Revenues		500,000

Crediting Revenues for $500,000 carries the implication that if necessary the discount is expected to be counterbalanced at a future date by receipt of money from another source. In the absence of a $9,000 subsidy by another fund the discount would normally be written off against Revenues. When it is known in advance that the discount will not be made up by transfers from other sources, a debit to Cash and a credit to Revenues, each for par value less discount, would suffice.

Should a bond sale occur between interest dates, with the result that an amount of accrued interest is included in the total selling price, the amount of accrual may be managed and accounted for in either of two ways:

1. The amount of accrued interest collected may not be recorded in the capital projects fund at all but in the debt service fund or whatever other fund will pay the interest.
2. The amount of accrual collected may be recorded in the capital projects fund, with a credit to Due to ______, and subsequently transferred to the creditor fund.

Circumstances permitting, the former is favored, on account of its simplicity.

Sale of bonds to finance a capital project is sometimes avoided, in whole or in part, through an agreement by the contractor to accept bonds in full or part payment for his services. This arrangement, though recommended by its simplicity, does not have widespread usage. It forces the financing upon the contractor. Not being a specialist in finance, his costs are likely to be above those of an expert, thus increasing the amount which he must bid on the project. However, the practice has some satisfied users.

Unlike private enterprises, governmental units as a class do not concern themselves with exact measurements of costs by time periods. This is doubtless due to the fact that their primary responsibility is rendering service rather than making a profit. It is conceivable that funds of the intragovernmental service and enterprise categories, which make use of income and expense statements, might have an interest in spreading discount or premium amortization over the lives of their bonds; but published statements do not confirm that they do. The reason may be that such elements are only remotely controllable by management of even those two kinds of funds.

Retained percentages

It is practically universal to require contractors on large-scale contracts to give performance bonds, providing for indemnity to the governmental

unit for any failure on the contractor's part to comply with terms and specifications of the agreement. Before final inspection of a project can be completed the contractor may have moved his working force and equipment to another location, thus making it difficult for him to remedy possible objections to his performance. Also, the shortcoming alleged by the governmental unit may be of a controversial nature, with the contractor unwilling to accede to the demands of the governmental unit; and results of legal action in such disagreements are not predictable with certainty.

To provide more prompt adjustment on shortcomings not large or convincing enough to justify legal action, and not recoverable under the contractor's bond, as well as those which the contractor may admit but not be in a position to rectify, it is common practice to withhold a portion of the contractor's remuneration until final inspection and acceptance have come about. The withheld portion is normally a contractual percentage of the amount due on each segment of the contract.

In the Bloomsburg illustration the contractor submitted a bill for $65,000 which, upon preliminary approval, was recorded as follows:

Expenditures	65,000	
Contracts Payable		65,000

Assuming the contract provided for retention of 5 percent, current settlement on the billing would be recorded as follows:

Contracts Payable	65,000	
Cash		61,750
Contracts Payable—Retained Percentage		3,250

Upon final acceptance of the project, the retained percentage is liquidated by a payment of cash. In the event that the governmental unit which made the retention finds it necessary to spend money on correction of deficiencies in the contractor's performance, the payment is charged to Contracts Payable—Retained Percentage.

Multiple-period and multiple-project bond funds

Thus far discussion of capital projects fund accounting has proceeded on the tacit assumption that initiation and completion of projects occur in the same fiscal year. Such experience is not prevalent. A majority are started in one year and ended in another. Furthermore, a single comprehensive authorization may legalize two or more acquisition or construction projects as segments of a master plan of improvements. Both multiple-period and multiple-project activities require some deviations from the accounting activities which suffice for one-period, one-project accounting.

unit's legislative body. If a sufficient appropriation exists to cover a certain claim in litigation, an encumbrance may be recorded if legislatively approved, on the basis of an assumed adverse decision.

Investments is not a frequent account title in the structure of capital projects funds. Its presence is usually found in funds for which some or all of the bonds have been sold or grants received in substantial advance of the need for the proceeds. To avoid, or at least minimize, possible loss on reconversion, only prime debt securities such as municipal, state, and federal obligations should be acquired, and those on a highly selective basis. Interest earned on such investments should be disposed of according to any applicable laws or local ordinances. If received by the capital projects fund owning the investments it might be credited to Interest Earned for ease and clarity of reporting in financial statements but ordinarily it goes to Revenues. Final disposition of the item depends upon whether it is to be transferred to some other fund or added to the amount available for financing the project (Fund Balance).

Closing entries

For purpose of discussion and illustration, closing entries will be divided into two classes:

1. Those at the end of a project, whether single or multiple-period in nature.
2. Those at the end of other than the final period of a multiperiod project.

If a capital projects fund had received interest or paid interest, the former to be transferred to another fund and the latter to be reimbursed by another fund, those things should have been accomplished before the end of the period; they represent transfer entries rather than closing entries. This applies whether at the end of a project or at the end of a fiscal period.

Let it be assumed that upon completion of a project the related fund had the following trial balance:

	Debit	*Credit*
Cash	$ 800	
Interest Earned		$ 120
Interest Expense	300	
Revenues		79,020
Expenditures	78,040	
	$79,140	$79,140

The following entries need to be made:

1. Revenues	79,020	
Interest Earned	120	
Interest Expense		300
Expenditures		78,040
Due to Another Fund		800
To close nominal accounts and record liability to another fund.		

2. Due to Another Fund	800	
Cash		800
To record transfer of cash to another fund.		

In the first entry the two debits and first two credits are bona fide closings. The third credit prepares for transfer of residual cash to the ultimate recipient. In the second entry neither member is primarily for closing. The entry records a transfer and incidentally puts two accounts in balance.

Interest Earned and Interest Expense having been disposed of in a previous paragraph, the only nominal accounts to be discussed for a period-end closing in an uncompleted project are Encumbrances and Expenditures. For reasons already discussed, there appears to be no emphatic need to close Encumbrances. Closing Expenditures may have some value, especially if the governmental unit desires a complete statement of general fixed assets. Assuming period-end balances of $80,000 and $60,000, and that period-end closing of Encumbrances is mandated, the following entry is called for:

Fund Balance	140,000	
Encumbrances		60,000
Expenditures		80,000

Since the encumbrances closed out by the above entry represent commitments that are still in effect for purchase orders issued and contracts entered into but not performed, it is apparent that the amount should be restored at the beginning of the following period by a debit to Encumbrances and a credit to Fund Balance.

Financial statements for capital projects funds

To give protection against unintended uses of their grants for capital improvements, it is common practice for state and federal governmental agencies to require special reports of how their money is being used. These reports are not in conventional forms and tend to vary among agencies, with frequent changes to be expected. Meaningful generalizations about the form and contents of such reports is not possible in a small space.

Conventional types of statements useful for control and management of capital improvement projects are three in number:

1. Balance sheet.
2. Analysis of changes in fund balance.
3. Statement of cash receipts and disbursements.

Balance sheets may be prepared for projects in which the primary mission has not been accomplished, and for other projects in which the primary

mission of acquisition or construction has been accomplished but in which final disposition of assets and liabilities has not occurred. Statements of the other two kinds may also include data for projects which have had transactions during the year but for which all accounting transactions had been completed before the year's end.

For a single fund which has not completed its project the balance sheet in Illustration 6–1 would be appropriate:

Illustration 6–1

CITY OF WORTHINGTON

Flood Control Fund
Balance Sheet, December 31, 1969

Assets

Cash		$ 18,000
Due from federal agency (specify which)		42,000
Investments		67,000
Accrued interest earned		360
Total Assets		$127,360

Liabilities, Reserve, and Fund Balance

Liabilities:		
Vouchers payable	$ 4,000	
Contracts payable	43,000	
Contracts payable—retained percentage	9,100	
Total liabilities		$ 56,100
Reserve for encumbrances		23,000
Fund balance		48,260
Total Liabilities, Reserve, and Fund Balance		$127,360

An analysis of changes in fund balance to explain the $48,260 balance shown above might take the form shown in Illustration 6–2:

Illustration 6–2

CITY OF WORTHINGTON

Flood Control Fund
Analysis of Changes in Fund Balance
Year Ended December 31, 1969

Original authorization		$300,000
Fund balance, January 1, 1969		$ 20,000
Additions:		
Bond sales	$150,000	
Grant from federal agency	40,000	
Interest earned	1,800	
Prior year's encumbrances reestablished*	10,460	
Total additions		202,260
Total beginning balance and additions		$222,260

Illustration 6-2—*Continued*

Deductions:		
Expenditures:		
Contract costs	$120,000	
Noncontract costs	31,000	
Total expenditures	$151,000	
Amount in reserve for encumbrances at December 31, 1969*	23,000	
Total Deductions		174,000
Fund balance, December 31, 1969		$ 48,260

* These items correlate with closing of Encumbrances to Fund Balance at the end of each year in which acquisition or construction of project is not completed.

Combined columnar balance sheets may be prepared if there are two or more capital projects funds which have not been closed at date of statement preparation. The following example is a simple illustration:

Illustration 6-3

CITY OF WORTHINGTON

Capital Projects Funds
Balance Sheets, December 31, 1969

Assets	*Combined*	*Flood Control Fund*	*Fire Station Fund*
Cash	$ 24,380	$ 18,000	$6,380
Due from federal agency (specify which)	42,000	42,000	...
Investments	67,000	67,000	...
Accrued interest earned	360	360	...
Accounts receivable for materials sold	740	...	740
Total Assets	$134,480	$127,360	$7,120
Liabilities, Reserve, and Fund Balance			
Liabilities:			
Vouchers payable	$ 4,000	$ 4,000	...
Contracts payable	43,000	43,000	...
Contracts payable—retained percentage	14,290	9,100	$5,190
Due to debt service fund	1,930	...	1,930
Total liabilities	$ 63,220	$ 56,100	$7,120
Reserve for encumbrances	23,000	23,000	...
Fund balance	48,260	48,260	...
Total Liabilities, Reserve, and Fund Balance	$134,480	$127,360	$7,120

Examination of the two columnar balance sheets reveals the flood control project to be in an incomplete status while the fire station is complete, with only final payments remaining to be made. Had there been two or more funds in either category they should have been given a general heading of *Incomplete* for the one category and *Complete* for the other, the names alluding to the status of construction or acquisition.

A combined columnar balance sheet for two or more capital improvement funds should be supplemented by a combined columnar analysis of changes in fund balance. Such a statement for imaginary funds is shown in Illustration 6–4.

Illustration 6–4

CITY OF WORTHINGTON

Capital Projects Funds
Analysis of Changes in Fund Balances
Year Ended December 31, 1969

	Combined	*Flood Control Fund*	*Fire Station Fund*
Original authorization	$750,000	$300,000	$450,000
Fund balance, January 1, 1969	$155,000	$ 20,000	$135,000
Additions:			
Bond sales	$150,000	$150,000	...
Grant from federal agency (specify which)	40,000	40,000	...
Interest earned	4,800	1,800	$ 3,000
Prior year's encumbrances reestablished	10,460	10,460	...
Total additions	$205,260	$202,260	$ 3,000
Total beginning balance and additions	$360,260	$222,260	$138,000
Deductions:			
Expenditures:			
Contract costs	$252,400	$120,000	$132,400
Noncontract costs	31,000	31,000	...
Total expenditures	$283,400	$151,000	$132,400
Amount in reserve for encumbrances, December 31, 1969	23,000	23,000	...
Transfers to other funds	5,600	...	5,600
Total deductions	$312,000	$174,000	$138,000
Fund balance, December 31, 1969	$ 48,260	$ 48,260	$ ...

As for the combined columnar balance sheets, one of the imaginary funds is incomplete, the other complete. The presence of two or more funds in either or both categories would call for a general heading or general headings for each.

Statements of cash receipts and disbursements are important to administrators of capital projects funds. Such statements for periods as short as one month may be useful in helping to maintain the flow of cash necessary for prompt payment of contractors' and other bills. A fair idea of requirements for a cash statement for a single fund may be gained from the example (Illustration 6–5) of a combined columnar statement adapted to use for two or more funds.

Illustration 6–5

CITY OF WORTHINGTON

Capital Projects Funds
Statements of Cash Receipts and Disbursements
Year Ended December 31, 1969

	Total	Flood Control Fund	Fire Station Fund
Cash balance, December 31, 1968	$ 51,960	$ 25,100	$ 26,860
Receipts:			
Bond sales	$150,000	$150,000	...
Grant from federal agency (specify which)	40,000	40,000	...
Sale of investments	110,120	...	$110,120
Interest earned	4,600	1,600	3,000
Total receipts	$304,720	$191,600	$113,120
Total beginning balance and receipts	$356,680	$216,700	$139,980
Disbursements:			
Payments on contracts	$216,100	$ 91,400	$124,700
Payment of noncontract cost	15,530	10,300	5,230
Payment of bond anticipation notes	30,000	30,000	...
Purchase of investments	67,000	67,000	...
Transfers to other funds	3,670	...	3,670
Total disbursements	$332,300	$198,700	$133,600
Cash balance, December 31, 1969	$ 24,380	$ 18,000	$ 6,380

Comparative financial statements

Revenue funds, intragovernmental services funds, enterprise funds, and many trust and agency funds operate on a continuing basis through many fiscal periods. In general, their operations are much the same from year to year. Their financial conditions at the ends of comparable fiscal periods, as shown in balance sheets, have considerable similarity. These characteristics invite the use of comparative financial statements for managerial use. On the other hand, comparative statements are practically useless for administration of capital projects funds. Some capital projects are started and finished within one year. As to multiperiod projects, the primary goal is to make them different each year by converting financial resources into capital assets as rapidly as possible. Operations of no two periods are similar except by coincidence, and financial conditions at the ends of any two periods are no more likely to be similar. In short, comparative statements have no applicability to capital projects funds.

SELECTED REFERENCES

MARTIN, T. LEROY. "Accounting for Debt Service and Capital Projects Funds," *Municipal Finance*, Vol. XL, No. 3 (February, 1968), pp. 121–127.

NATIONAL COMMITTEE ON GOVERNMENTAL ACCOUNTING. *Governmental Accounting, Auditing and Financial Reporting*, pp. 47–49. Chicago, 1968.

QUESTIONS

1. A public improvement project was accomplished by a combination of using the municipality's own working force and contracting with a private contractor. Before completion of a project a quantity of materials was salvaged and sold for cash. To what account should the sale be credited?
2. What do you think of charging the Expenditures account of a capital projects fund with depreciation of heavy equipment used on the project, assuming all work is done by the governmental unit's own working force?
3. The sale of $1,000,000 par value of general bonds by a municipality produced $1,020,000 cash (no accrued interest sold).
   a) Was all or any part of that sum revenue for a capital projects fund, assuming it received the total amount?
   b) Was all or any part of that sum revenue to the municipality? Give a reason for each of your answers.
4. A municipality, having presently idle money on hand in a capital projects fund, invested $60,000 of it in well-seasoned investments. When the bonds were sold, $595 was received for accrued interest on the investments but the market value had declined $50. Make appropriate entries for purchase and sale of the bonds; also, make a proper closing entry.
5. The amount of $125,000 had been withheld from amounts owing to a contractor. Certain deficiencies were discovered in work done by the contractor, who was not in a position to make the necessary corrections. The latter work was done by a second contractor, who charged $7,500 for his work. Record the adjustment transaction and also final settlement with the main contractor.
6. The successful bidder on a capital projects fund–financed improvement contract began work on the project but was unable to complete it, whereupon his bonding company assumed its responsibility and let a contract to another bidder at a price below the originally contracted amount. What changes were required in the governmental unit's accounting records because of the circumstances described above?
7. At June 30, 1968, the Fund Balance account of a capital projects fund showed a balance of $960,000. At June 30, 1969, the balance had been reduced to $52,800. Is that change a cause for alarm? Explain your answer.
8. A bond issue was sold at a premium which was credited to Premium on Bonds. It was subsequently shown as due to a debt service fund, and finally the cash was paid. How could this procedure have been shortened if it was known in advance that the debt service fund was to get the premium?

PROBLEMS

1. Below is a collection of miscellaneous requirements related to accounting and reporting for capital projects funds. Make journal entries and prepare a financial statement as required.

a) $800,000 par value of bonds were sold at 99, the discount to be recorded and subsequently eliminated by a transfer from another fund. Record both transactions.
b) Facts same as in (*a*) but discount recorded and subsequently written off because not covered by transfer of money from another fund.
c) Facts same as in (*a*) but only amount received being recorded.
d) $600,000 par value of bonds were sold at a premium of 2 percent, plus $900 accrued interest. Both premium and accrued interest recorded but subsequently transferred to a debt service fund. Journalize both transactions.
e) Terms of sale same as in (*d*) but neither premium or accrued interest money received by the capital projects fund.
f) At December 31, 1968, the city of Newark's fire station construction fund had a balance of $680,000, after closing entries had been journalized and posted. $230,000 of encumbrances were outstanding.

Original authorization for the project was $2,300,000, to be financed $750,000 by the federal government, $250,000 by the state government, and the remainder by a bond issue. Most of the work was to be done by various private contractors.

During the first 6 months of 1969 the following transactions or facts were reported:

(1) $300,000 was recorded as due from the federal government. $450,000 had previously been recorded.
(2) All of the amount of the state's grant was recorded as due.
(3) $1,400 was collected as earnings on temporary investments.
(4) Expenditures on the construction contracts totaled $1,230,000. Other expenditures amounted to $40,000.
(5) $901,000 of encumbrances were outstanding at June 30, 1969.
(6) Some bonds remained to be sold.

Prepare a statement of changes in fund balance for the six months ended June 30, 1969. No journal entries required.

State whether you think the fund was definitely in financial difficulty because it had a negative fund balance at June 30, 1969.

2. To finance erection of a club house on the municipal golf course, the legislative body of Hensonburg authorized an issue of revenue bonds for the golf club house project. In the absence of legal opposition, the bonds were approved and the following events occurred:

(1) Memorandum recording of the $600,000 bond authorization (no entry required).
(2) Advertising for bids on the project.
(3) Incurring of $5,500 preliminary expenses (credit Accounts Payable).
(4) Receipt of $7,000 cash from the general fund, to pay for planning and engineering services already received. (Loan.)
(5) The preliminary expenses already incurred were paid.
(6) Letting a $579,000 contract for erection of the structure.
(7) Sale of $590,000 par value of the bonds at 101. Credit Premium on Bonds.
(8) Filing of a $2,500 damage suit against the city which, upon competent advice, the municipality chose not to contest. A judgment for the full amount was awarded in court.
(9) Repayment of loan from general fund.
(10) Receipt of a bill for $200,000 of the contract completed.
(11) Payment of 95 percent of the contractor's bill.
(12) Payment of the damages judgment.
(13) Modification of the original plans at a contract price of $6,000, the contractor to accept unissued bonds for the amount of the addition.
(14) Receipt of a bill for the balance of the contract price.
(15) Payment of additional miscellaneous costs of $3,000 related to the project.
(16) The project having been approved, final settlement was made with the contractor, who was assessed a penalty (adjusted in the final settlement) of $1,000 for failure to complete the project within the contract period.

(17) Closing entries were made, with a credit to a debt service fund for unused cash.
(18) Transfer of cash to the debt service fund.

Record above transactions by journal entries and posting.

3. In 1968 the town board of Harrison authorized a bond issue of $1,200,000 for the erection of a municipal administration building estimated to cost $1,500,000. The difference between estimated total cost and the bond authorization was to be provided from a federal grant. $1,000,000 par value of the bonds were sold in a high market on October 1, 1968, but at a discount. It was anticipated that if necessary the discount would be covered by a grant by some other fund of the town. Some work was done in 1968 but no closing entries were made at December 31, 1968.

At December 31, 1969, the municipal building erection fund had the following trial balance:

	Debit	*Credit*
Cash	$ 25,000	$
Contracts payable		48,000
Contracts payable—retained percentage		32,000
Encumbrances	420,000	
Expenditures	700,000	
Investments—temporary (at cost)	340,000	
Revenues		1,000,000
Discount on sale of bonds	15,000	
Reserve for encumbrances		420,000
	$1,500,000	$1,500,000

You are required to do the following things:

a) From the explanatory statements and the trial balance information given above prepare a statement of changes in fund balance for the period September 30, 1968, to December 31, 1969.

b) Study the explanatory information and analyze the account balances; then prepare a statement of cash receipts and disbursements for the same period.

4. The town council of the town of Crothersville decided to embark upon the construction of a recreation center to be financed partly by revenue bonds and partly by a grant from an agency of the federal government. Due to uncertainty as to the exact amount of aid to be received from federal tax money and, therefore, the total amount of bond financing required, it was decided to defer the formal bond authorization until better information was available, although commitments to purchase the bonds had been received.

(1) Preliminary planning and engineering expenses were incurred in the amount of $11,-500. No money was immediately available for paying these costs (credit Vouchers Payable).
(2) Supplies to be used by the city's own working force in connection with the project were ordered in the amount of $7,050.
(3) A contract was let under competitive bids for a major segment of the project in the amount of $2,170,000.
(4) Sale of buildings presently occupying the site of the future recreation center, which site was donated by a philanthropist, brought $3,100 cash to the recreation center fund treasury.
(5) All the supplies referred to in (2) were received at a net cost of $6,090, part of the

difference between the amount encumbered and the amount to be vouchered being due to one vendor's inability to fill all of his part of the total order.

(6) A bill (not encumbered) was received from the street fund for work done on the project in the amount of $2,080. This bill will be settled by an interfund transfer.

(7) A bill for $200,000 was received from a contractor for a portion of work which had been completed under the general contract.

(8) The bond issue not yet having been prepared for marketing, it was decided to provide temporary financing by borrowing on bond anticipation notes payable, of which $250,000 were issued to a lending institution. They were discounted at 2 percent for the time till maturity.

(9) The contractor's bill, less a 5 percent guaranty, was paid (do not voucher).

(10) All vouchers payable, except $970 about which there was some controversy, were paid.

You are required to do the following things for the Crothersville recreation center construction fund:

a) For such of the foregoing information as requires formal recording, make journal entries and post to T accounts, or post directly from transactions to T accounts.

b) Prepare a trial balance, using June 30, 1969 as the date.

c) Prepare closing entries at June 30, 1969.

d) Prepare a balance sheet for June 30, 1969.

e) Prepare a statement of changes in fund balance. Designate as, "For Six Months Ended June 30, 1969." Show authorization as "Undecided."

f) The fund balance amount at June 30, 1969 might seem to indicate that the fund is in a distinctly unfavorable financial condition. State why that is not necessarily the case.

5. In 1968 the city of Lawrenceville began the work of expanding its sewer system, to be financed by a bond issue, supplemented by state and federal grants. Estimated total cost of the project was $730,000; $480,000 was to come from the bond issue, $200,000 from a federal grant, and the balance from a state grant. The capital projects fund to account for the project was designated as the Sewer System Expansion Fund.

The following transactions were consummated in 1968:

(1) A $25,000 loan was supplied by the general fund.

(2) The amounts to be supplied by the other governmental units (state and federal) were recorded as due. (Record amounts due in separate accounts.)

(3) A contract was let to Reynolds Construction Company for the major part of the project on a bid of $695,000.

(4) A bill was received from the city's stores and services fund for supplies provided to this fund in the amount of $2,010.

(5) An account payable was recorded for a $1,680 billing from the local telephone company for the cost of moving some of its underground properties necessitated by the sewer project.

(6) A billing of $160,000 was received from Reynolds for billable progress to date on the project.

(7) Preliminary planning and engineering costs of $19,500 were paid to the Midwest Engineering Company. There had been no encumbrance for this cost.

(8) Revenue collected during 1968 was as follows:

From federal government	$150,000
From state government	25,000
From sale of bonds at par	200,000

(9) The amount due to the general fund and the amount billed by the contractor, less 5 percent withheld, were paid.

(10) Temporary investments were purchased at a cost of $146,000, of which $1,500 was for accrued interest purchased (debit Accrued Interest Purchased).

You are required to do the following things:

a) Prepare a trial balance for December 31, 1968.
b) Prepare closing entries.
c) Prepare a balance sheet for December 31, 1968.

Transactions for 1969 were as follows:

(11) Encumbrances in effect at December 31, 1968, were reestablished in the accounts.
(12) The city board of works decided upon a further extension of the sewer and, after necessary legal actions, awarded the addition to the original contractor at $45,000. Additional bonds were authorized in that amount.
(13) An additional billing was submitted by the contractor in the amount of $310,000.
(14) Investments were disposed of for cash. Revenue earned on the sale amounted to $2,600 over and above accrued interest recovered.
(15) The remaining bonds were sold at 101, but the premium was paid directly to the sewer system expansion debt service fund.
(16) The contractor's second billing, less 5 percent retention, was paid.
(17) The contractor reported the project completed, subject to final inspection and approval by the supervising engineers, and submitted his bill for the balance of the contract.
(18) Balances due from the state and federal government were received.
(19) The amount due on the contractor's last billing, less 5 percent retained was paid.
(20) The accounts payable liability and that to the stores and services fund were paid.
(21) Upon final inspection a defect was discovered and reported to the contractor. Having moved his working force and equipment to another job, he authorized correction of the defect at a cost not to exceed $5,000. The correction was made at a cost of $4,700, which was paid from the project cash account.
(22) The balance due to the contractor was paid to him.
(23) The balance of cash was transferred to the sewer system expansion debt service fund (debit Fund Balance) on November 17, 1969.

You are required to do the following things:

a) Make closing entries and post to ledger accounts.
b) Prepare a statement of changes in fund balance for December 31, 1968 to November 17, 1969. Authorizations may be shown as a total.

6. The common council of the town of Waynesburg approved a $1,200,000 issue of 5 percent bonds to help finance a general improvement program estimated to cost a total of $1,900,000. The federal government had agreed to finance $700,000 of the cost. Action of the council was approved by vote of property owners in the municipality.

For control purposes, encumbrances, reserve for encumbrances and expenditures are to be identified as to whether they relate to the central office building or to the hospital project, by use of the following special titles:

Encumbrances—Hospital Addition
Reserve for Encumbrances—Hospital Addition
Expenditures—Hospital Addition
Encumbrances—Office Building
Reserve for Encumbrances—Office Building
Expenditures—Office Building

The following transactions occurred:

(1) An advance of $7,000 was received from the general fund.
(2) Based on estimated cost of the two projects, the town council formally allocated $600,000 to the office building and the remainder to the hospital addition. (No entry required.)

(3) $800 was paid, without prior encumbrance, for preliminary expenses related to the office building.
(4) $100,000 par value of the bonds were offered for sale and sold for 102 and accrued interest from January 1 to March 31, date of the sale. (Record entire transaction.)
(5) Money from premium and accrued interest was transferred to a debt service fund.
(6) Materials for work to be done on the office building by the city work force were ordered in the amount of $43,200.
(7) A contract was let for a major portion of the office building contract at a total price of $480,000.
(8) All materials ordered for the office building were received at a total cost of $43,400 (credit Vouchers Payable).
(9) Prior to completion of the office building, changes in plans and specifications were requested by the city. By agreement of the two parties involved, the changes were incorporated in the contract at an additional cost of $15,000.
(10) The advance from the general fund was repaid.
(11) Payrolls for work done by the city working force on the office building totaled $54,100 (do not voucher) and were paid, as were the bills for materials.
(12) $500,000 more bonds were sold on September 30 for financing the office building. They yielded 102 and accrued interest from July 1.
(13) A bill was received from the construction company for the amount of the office building contract as revised.
(14) The amount of contribution expected from the federal government was recorded as due.
(15) Premium and accrued interest on the second bond sale were transferred to a debt service fund.
(16) The claim of the office building contractor was paid less a retained percentage amounting to $24,750.
(17) A contract was let for construction of a hospital addition at an estimated cost of $950,000.
(18) $100,000 par value of bonds were marketed at 99¾ and accrued interest which amounted to $3,200. As discount on bonds sold was to be offset by a contribution of like amount from the general fund in this instance, it may be debited to the general fund.
(19) The accrued interest on the bonds sold was transferred to a debt service fund.
(20) $200,000 of the amount due from the federal government was received.
(21) The office building project having been found acceptable, the balance due the contractor was paid.
(22) Various general expenses incurred on the hospital addition were paid at a cost of $7,600.
(23) Land made necessary by the hospital addition was acquired at a cost of $11,900, paid in cash.
(24) A bill based upon 30 percent of the hospital construction contract was received.

The period ended at this stage of the project and you are required to do the following things:

a) Journalize the foregoing transactions and post them to T accounts or post directly from transactions to T accounts.
b) Prepare a trial balance, assuming a date of December 31, 1969.
c) Prepare a statement of changes in fund balance, observing the following rules:
   1. Include a Total, an Office Building, and a Hospital Addition column.
   2. Report authorizations for the two classes according to information in the beginning instructions.
   3. Revenues will be $600,000 from the sale of bonds for the office building, and from the federal government and sale of bonds for the hospital addition.
   4. The ending fund balance for the hospital addition may indicate a deficiency. Give the reason.

CONTINUOUS PROBLEM

6–L. The voters of the city of Bingham approved the issuance of general obligation bonds in the face amount of $6,000,000 for the construction and equipping of a community college to be called the I. L. Grimes Junior College. City engineers were to work on the plans. Architects were also to be retained. It is anticipated that the excavation, grading, and paving of roads and parking lots will be accomplished by the city Department of Public Works, but that all other construction will be handled by contractors.

You are required to:

a) Open a general journal for the College Construction Fund. Record the transactions below, as necessary. Use account titles listed under requirement (*c*).

b) Record in the general fund general journal all entries which should be made for the transactions below.

1. On the advice of the underwriters the total face amount of bonds bearing an interest rate of $3\frac{1}{4}$ percent were sold at $100,000 premium. The bonds are to mature in blocks of $300,000 each year over a 20-year period. The premium was transferred by the College Construction Fund to the College Bond Debt Service Fund.
2. A tract of land appraised at $350,000 was given to the city as a site for the college. The College Construction Fund purchased rights-of-way and additional small tracts for a total of $85,000; this amount was paid.
3. Legal and other costs of the bond issue were paid in the amount of $15,000.
4. Architects were engaged at a fee of 6 percent of the bid of the contractors. It is estimated that the architect's fee will be $240,000.
5. Preliminary plans were received and the architects were paid $50,000.
6. The detailed plans and specifications were received and a liability in the amount of $150,000 to the architects was recorded.
7. Advertisements soliciting bids on the construction were run at a cost of $125.
8. Excavation and grading was started by the city Department of Public Works. The College Construction Fund was to reimburse the General Fund for the actual cost of payroll and fringe benefits of laborers who worked on this project, and was to pay an agreed-upon rental for the equipment used. Paving materials were to be purchased by the College Construction Fund (to be encumbered as ordered). It was estimated that the cost to the College Construction Fund would be $190,000 for work done by the Department of Public Works.
9. Construction bids were opened and analyzed. A bid of $3,896,534 was accepted and the contract let.
10. Excavation and rough grading were finished. The General Fund presented the College Construction Fund with an invoice for $28,000 payroll cost, $12,000 fringe benefit costs, and $25,000 equipment rentals. The payroll and equipment charges were approved for payment, but the amount of the fringe benefits was disputed and no liability was recorded for the $12,000.
11. The contractor requested a partial payment of $1,400,000. This amount was approved for payment.
12. Vouchers payable to the contractor and the General Fund were paid. One third of the amount due the architects was paid.
13. Paving materials were ordered at an estimated total cost of $150,000.
14. Furniture and equipment for the college were ordered at an estimated total cost of $1,260,000.
15. The contractor completed the construction and requested payment of the balance due on the contract. After inspection of the work the amount was vouchered and paid.

16. Paving materials were received. The invoices, totaling $151,312, were approved for payment.
17. The Department of Public Works did the finish grading and paved roads and parking lots. The payroll totaled $56,000; fringe benefits, $24,000; and equipment rental, $50,000. The Construction Fund approved payment of $106,000 to the General Fund.
18. Furniture and equipment was received at a total actual installed cost of $1,276,000. Invoices were approved for payment.
19. Both amounts billed by the General Fund for fringe benefits were settled for a total of $25,200. The liability for this amount was recorded.
20. The remainder of the architect's fee was approved for payment. The College Construction Fund paid all outstanding liabilities.

c) Open a general ledger for the College Construction Fund. Use the account titles shown below. Allow 5 lines unless otherwise indicated. Post the entries to the College Construction Fund general ledger.

Cash—15 lines
Revenues
Premium on Bonds
Vouchers Payable—15 lines
Due to Other Funds—8 lines
Expenditures—18 lines
Encumbrances—18 lines
Reserve for Encumbrances—18 lines
Fund Balance

d) Prepare a College Construction Fund trial balance.

e) The College Construction Fund was closed. Remaining assets were transferred to the College Bond Debt Service Fund. Record the proper journal entries in the College Construction Fund and post to its general ledger.

Chapter 7

Debt Service Funds

In the preceding chapter governmental bonds had a place because they are the source of vast sums of borrowed money used in the construction or purchase of long-term assets. The present chapter relates mostly to provision for, and the act of, paying principal and interest on bonds. Debt service is sometimes spoken of in reference to interest, or possibly to principal, alone. The more common usage relates it to both interest and principal and it is so used in the discussion of debt service funds in this chapter. Structurally they are flexible enough to be used in connection with payment of either principal or interest, or both. The common practice is to employ a separate debt service fund for each bond issue to be serviced. In the past, this family of funds has commonly been called sinking funds.

Bond issues are planned with two main considerations in mind:

1. Obtaining the largest possible net amount of money for the smallest possible total amount of future principal and interest payments.
2. Such payments to be made under terms and conditions most favorable to the issuer of the bonds.

A wide range of combinations of terms, conditions, and provisions in bond issues is the result; but for debt service funds the majority of these affect only the amount and timing of bond service collections, and timing and amount of disbursements by debt service funds. Ordinarily a bond issue should be shaped to include what is considered the most favorable combination of the factors mentioned. Two features of bond issues having the greatest import to their related debt service funds are:

1. *Timing of maturities.* Are they *term bonds,* maturing in total at a given future date; or *serial bonds,* maturing at fixed or irregular intervals of time, in specified amounts?
2. *Callability.* Does the issuing governmental entity have the authority to call for payment any or all of the bonds at times to be selected by it?

Obviously these features are important for efficient debt service management because they affect the scheduling of asset acquisition and disbursement.

While debt service funds are employed mostly in connection with bonded debt, they may be used for service of notes payable, time warrants payable,[1] and, in fact, service for any kind of debt for which segregation of assets is required by covenant or deemed financially desirable.

Some bond issues may be retired without use of a debt service fund. This is true if the bond indenture provides for payments of such size and at such intervals that both principal and interest payments may be financed by some revenue fund through its regular annual budget, without undue burden to that fund. This is an economical program of debt service because it reduces the required administration and accounting activities to a minimum, with special reference to management of assets—principally cash and income-producing investments—which would otherwise have to be segregated in a separate fund.

Financing by use of serial bonds may entirely obviate the need for a debt service fund for either principal or interest. Interest payments typically are required in relatively small amounts, and so may be financed from current revenue of each year without imposing an excessive burden on any one year's resources. Likewise, repayments of principal may be spaced over a long enough term and with such frequency that they can be financed without the use of a special accumulation fund. However, there is nothing in the nature of debt service funds to interfere with their use for serial bond service, and many governmental entities do so: the question is whether their use for that purpose is beneficial.

The use, size, and method of operating a debt service fund to account for payment of bond principal and interest may be contractual, mandatory by law, or voluntary. First, the prospective issuer of bonds may, by choice or by direction of the underwriting syndicate[2] or other outlet expected to market the issue, include in the bond indenture[3] contractual provisions for a debt service fund. Except for governmental units with the highest credit rating, this should increase the attractiveness of the issue, thus producing a better yield from sale of the bonds, to be partly offset by the cost of operating the service fund. Second, the governmental unit may be required by law to establish a fund for servicing payments of interest and principal. Third, without compulsion, either from the bond indenture or from law, the governmental unit may see fit to establish a service fund —for possible better management of debt servicing, for improving attractiveness of its bonds as an investment, or for any other reason acceptable to the parties concerned.

With the foregoing information about the nature and usual environ-

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[1] This kind of debt is an order on a second party to pay a third party at some future date.

[2] As applied to finance, a group formed to market an issue of bonds or other securities.

[3] A contract between the prospective issuer of bonds and a trustee or other agent representing prospective owners.

ment of debt service funds, attention will now be transferred to their mechanics. How they operate in general, and what should be done about various special situations, will be discussed and in many cases illustrated to the extent deemed appropriate in a single chapter. It should be noted that three kinds of funds—intragovernmental service, special assessment, and enterprise—may issue debt to be serviced exclusively from resources generated and applied to debt service within the issuing fund (always true of special assessment funds). No separate debt service fund is required.

Financing debt service funds

Debt service funds, being affected by both state laws and local ordinances and edicts, may be financed from a variety of sources, of which the major ones are:

1. Ad valorem property taxes.
2. Nonproperty taxes and license fees.
3. Assessments upon, or contributions by, other funds.[4]
4. Income from investments.

Some of the revenue may pass to the debt service fund from the source by which it is generated, but probably the larger part is received as a contribution by, or transfer from, another fund.[5] Whatever the aggregate sources providing financial support for a debt service fund may be, there is likely to be an ad valorem property tax which will be called upon to provide money when that obtained from other sources is inadequate for debt service requirements.

Accounting procedures

Notwithstanding a wide range of practices in the organization and management of debt service operations, only two general types of fund structures are required to account for substantially all of them. The two have no special names but their general characteristics are as follows:

1. The simpler is structured much like a revenue fund, collecting taxes, fees, licenses, etc., either from the originators or another fund, and using the proceeds to pay debt service liabilities as they become due. This type of fund is usually operated on a year-to-year basis with little or no effort to accumulate assets for investment purposes. It is adapted for debt service on serial debt.

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[4] The municipal gas company in a midwestern city annually pays a lump sum assessment, the amount of which is usually negotiated with the city council, to the city general fund, in lieu of taxes.

[5] The city of Louisville, Kentucky, has a body known as Commissioners of the Sinking Fund which dates from 1851. The unit has a general fund which receives all debt service money generated outside the fund and also income from investments owned by the commissioners' sinking fund. The commissioners' general fund then annually transfers to its sinking fund exactly the amount of its debt service requirements.

2. A slightly more complicated type embodies a plan based upon an actuarial schedule which serves as a long-term budget for the fund. Each year's changes in the actuarial schedule are a sort of budget for that year's transactions by the fund. This type of debt service fund is adapted for use in accounting for accumulation of sizable amounts of investments and other assets in connection with the servicing of term bonds.

For both types of funds the main sources of information are the detailed records of outstanding long-term debt maintained for effective debt management. In these records there are usually shown about the debt, by issues, the par value or principal outstanding, amounts of interest for each period, dates and amounts of maturities by issues, callability provisions, if any, and possibly other facts—all essential for preparing annual and long-term programs of debt service. Although not authoritatively designated as such, the type of fund which operates on annual budgets will be referred to as the annual type, while the other will be called the actuarial type.

A debt service fund for debt refunding

In truth, the debt service funds with potentially the shortest duration conceivably could be in existence for only a single day. This is a fund used to account for debt retirement by selling in total an issue of refunding bonds. Ordinarily this is accomplished by selling the new, refunding bonds and paying the creditors whose debts are being liquidated, either because of having matured or having been called. Assuming that the refunding issue sells for par value and that the debt being refunded is of the same amount, the following entries would serve to record the main operations, assuming $200,000 as the amount of both the old and new debts:

Cash	200,000	
Fund Balance		200,000
To record sale of refunding bonds.		
Fund Balance	200,000	
Cash		200,000
To record payment of the refunded bonds.		

If the refunding bonds were exchanged for the refunded debt, it would seem that, following present recommendations, no journal or ledger entries in a debt service fund would be necessary. As to the entry illustrated above, it should be noted that neither the bond issue being liquidated nor the refunding issue is required to be recorded in the debt service fund. Presumably the retired issue had been recorded in the General Long-Term Debt and Interest group (discussed in a later chapter) and the new issue will now be recorded there until it is liquidated. The imaginary refunding transaction qualified for recording in a debt service fund by virtue of the liquidation of the old issue of bonds, and not by issue of the newer bonds.

If a more detailed procedure for recording the refunding operation is desired, the National Committee on Governmental Accounting recommends the following debt service fund entries:

Cash	200,000	
Revenues		200,000
Receipt of proceeds of sale of new bond issue.		
Expenditures	200,000	
Matured Bonds Payable		200,000
To record liability for payment of bonds being retired.		
Matured Bonds Payable	200,000	
Cash		200,000
To record payment of bonds being retired.		
Revenues	200,000	
Expenditures		200,000
To close the above named accounts.		

Had this fund been responsible for paying the last installment of interest on the bonds being retired, cash received for making the payment (from whatever source) could have been recorded as in the first entry, the liability for paying the interest as in the second entry (credit Interest Payable or some similar title), and payment as in the third entry. Whether the simplified or expanded procedure is better in a given situation is a matter of personal opinion, to be decided by the governmental entity's accountant. Due to the usual brevity and restricted scope of a refunding operation, no budget is necessary, which accounts for the absence of budgetary entries in the illustration.

Debt service funds for serial bonds and interest

This is probably the most widely used kind of debt service fund, brought about by the emergence of serial bonds as a favorite form of long-time financing. If bonds are prepared to mature in relatively small amounts at regular intervals (or approximately so) of one year, with payment of bond principal and interest from each year's revenue of some revenue fund or funds, the responsibility would not ordinarily prove burdensome upon any one year's budget of the revenue fund or funds. Economy accrues from avoidance of the necessity of managing assets required to be kept in an accumulation fund if the bonds mature in a lump sum at a single future date. However, even though a bond issue matures at regular or irregular intervals during the total life of the issue, the maturities may be so far apart that a measure of annual accumulation of assets is desirable, or even mandatory, to keep the periodical payment burden from falling in a single year. To illustrate accounting procedures for a debt service fund for retiring serial bonds, an issue of bonds scheduled to mature in series, at rather long intervals (regular or irregular makes no difference) will be taken as an example embodying the following details:

Name of municipality: Bradford City.
Name of fund: Fire Station Bonds Debt Service Fund.
Fiscal period covered: 1969.
Source of financing: Contributions from general fund and net earnings on investments managed by a fiscal agent outside the governmental unit.
Debt outstanding at December 31, 1969: $800,000, payable $200,000 each three years, with interest at 5 percent. To be paid by debt service fund, both principal and interest.

It will be assumed that at December 31, 1968, the fund showed the following after-closing trial balance:

BRADFORD CITY

Fire Station Bonds Debt Service Fund
Trial Balance, December 31, 1968

	Debit	*Credit*
Cash in bank	$ 11,500	
Cash with fiscal agent	12,100	
Investments with fiscal agent	154,000	
Accrued interest on investments	3,090	
Due from general fund	17,000	
Accrued interest on fire station bonds		$ 20,000
Fund balance		177,690
	$197,690	$197,690

The fund budget for 1969 included the following items:
Appropriations: Retirement of bonds, $200,000; payment of current interest on fire station bonds, $40,000; expenses of fiscal agent, $2,300.
Estimated revenues: Contribution from general fund, $64,000; interest on investments, $4,120.

The absence of an appropriation for purchase of investments will be noted. Purchasing investments occasions the *disbursement* of cash but it is not an *expenditure* because it neither uses any of the current year's revenue nor reduces the fund balance. It is merely a conversion of one kind of an asset into another kind.

Transactions for 1969 and entries for them were as follows:

Estimated Revenues	68,120	
Fund Balance	174,180	
Appropriations		242,300
To record the 1969 budget. (The imbalance in the year's budget, rather than being a matter for concern, is typical of a fund operated just like this one is. In years when no bonds are retired revenues typically go into investments rather than into expenditures, whereas in years when bonds are retired a much larger amount goes to expenditures than is received in revenue during the year.)		
Due from General Fund	64,000	
Revenues		64,000
To record general fund's 1969 required contribution.		

Cash in Bank	77,000	
Due from General Fund		77,000
To record cash received from general fund during 1969.		
Expenditures	20,000	
Accrued Interest on Fire Station Bonds	20,000	
Cash in Bank		40,000
To pay bond interest accrued at December 31, 1968, and six months of current year's interest.		
Expenditures	2,300	
Cash with Fiscal Agent	32,500	
Cash in Bank		34,800
Transfer of cash to fiscal agent for investment and to pay his fees for the year in the amount of $2,300.		
Cash with Fiscal Agent	5,120	
Accrued Interest on Investments		3,090
Revenues		2,030
To record reported collection of $5,120 interest, including amount accrued at December 31, 1968.		
Investments with Fiscal Agent	43,220	
Cash with Fiscal Agent		43,220
Purchase of U.S. Treasury bills at a cost of $43,220.		
Expenditures	220,000	
Matured Bonds Payable		200,000
Accrued Interest on Fire Station Bonds		20,000
$200,000 par value of bonds and $20,000 of interest, both to be paid on January 1, 1970, recorded as due. (Since their issue these bonds presumably have been recorded in the governmental entity's general long-term debt and interest group. They now become a liability of the fund which will pay them. The liability account title is not the only acceptable one.)		
Cash with Fiscal Agent	207,800	
Investments with Fiscal Agent		197,220
Revenues		10,580
Report by fiscal agent of sale or maturity of all investments for a total of $205,320, plus $2,480 interest sold or collected since his last previous report. (Revenue credit includes $8,100 gain on sale of investments.)		
Cash in Bank	214,300	
Cash with Fiscal Agent		214,300
Transfer of all cash held by fiscal agent.		

Since the fund had no revenue-producing assets, nothing due from other funds, and no unrecorded expenditures at the end of 1969, there are no situations requiring adjusting entries. The following closing entry disposes of the year's nominal or temporary accounts:

Revenues	76,610	
Appropriations	242,300	
Expenditures		242,300
Estimated Revenues		68,120
Fund Balance		8,490

At this point it is appropriate to make some generalizations about the imaginary Fire Station Bonds Debt Service Fund, created to provide principal and interest service for a serial bond issue with maturities at intervals longer than one year.

1. With the exception of its regular accumulation of assets (investments) in excess of some year's expenditure requirements, the fund closely resembles a special revenue fund.
2. The fund recorded no administrative or overhead expense. Since this kind of agency is exclusively for the servicing of debt, its operations are simplified by absorbing administrative and overhead costs as part of the governmental unit's general administration. This is a matter of policy and not of any structural characteristic of the fund.
3. Since the appropriation ordinance authorized expenditures for only three purposes, encumbrance entries were not necessary but would have done no harm. If there had been several different kinds of expenditures, including some inclined to vary widely from year to year, encumbrance accounting probably would have been helpful.
4. At the end of the nine more years required to liquidate the remaining balance of $600,000, the existence of the Fire Station Bonds Debt Service Fund will come to an end because its mission has been performed. It might even be liquidated at an earlier date, if the bonds are callable and assets become available for paying part or all of the debt before maturity.
5. Had maturities of the bonds been on an annual basis, transactions of the fund would be much the same, with the exception of those pertaining to the fiscal agent relationship, which would probably be absent, and the comparative amount of investments owned at any one time would have been less.
6. Some government units provide their own management for investment programs, which are likely to be much more inclusive than for debt service funds alone. This substitutes internal cost for a fiscal agent's fees, but, because of the often imprudent choice of public officials, may result in less efficient management. Bond indentures may stipulate the employment of an independent fiscal agent possessing recognized qualifications.

Financial statements of a serial bonds debt service fund

Financial statements for this type of debt service funds are likely to be much the same, whether the fund is for bonds maturing at regular or irregular intervals. Differences are likely to be confined to the number and titles of accounts used. Balance sheets, statements of revenue, expenditures and fund balance, and statements of cash receipts and disbursements are the most common. If the fund perchance has numerous kinds of expenditures and of revenues, the second statement mentioned, prepared to compare actual with estimated, and possibly showing amounts and percentages of deviation of actual from estimated, may be useful in planning future operations.

The Fire Station Bonds Debt Service Fund balance sheet after closing at December 31, 1969, would be as shown in Illustration 7–1.

Illustration 7–1

CITY OF BRADFORD

Fire Station Bonds Debt Service Fund
Balance Sheet, December 31, 1969

Assets		*Liabilities and Fund Balance*	
Cash	$228,000	Liabilities:	
Due from general fund	4,000	Matured bonds payable	$200,000
		Accrued interest on fire station bonds	20,000
		Total liabilities	$220,000
		Fund balance	12,000
Total Assets	$232,000	Total Liabilities and Fund Balance	$232,000

In appraising the apparently precarious financial condition of the Fire Station Bonds Debt Service Fund, it should be noted that it is one day away from paying recorded liabilities of $220,000, after which it will begin accumulating assets, according to a definite plan, for paying $90,000 interest ($600,000 × 5 percent × 3) during the next three years, plus $200,000 of principal at the end of three years.

Why the fund balance of $177,690 at December 31, 1968 declined to $12,000 one year later is explained by the statement shown in Illustration 7–2.

Illustration 7–2

CITY OF BRADFORD

Fire Station Bonds Debt Service Fund
Statement of Revenues, Expenditures, and Fund Balance for 1969

Fund balance, December 31, 1968		$177,690
Add: Excess of actual over estimated revenues:		
Actual	$ 76,610	
Estimated	68,120	
Excess		8,490
Total beginning balance and excess		$186,180
Deduct: Excess of appropriations over estimated revenues:		
Appropriations	$242,300	
Estimated revenues	68,120	
Excess		174,180
Fund balance		$ 12,000

Since the probable expenditures of this fund were highly predictable, there was no variance between appropriations (estimated expenditures) and actual expenditures, otherwise the excess of the one over the other would have had to be added or deducted, depending upon whether appropriations or expenditures was larger.

A cash receipts statement for this sort of fund will not be illustrated. Such a statement would begin with the year's beginning balance, add

nized receipts, deduct itemized disbursements and conclude with the ır-end balance.

bt service funds for term bonds

When repayment of the principal of an issue of term bonds is fortified the establishment of a well-planned retirement fund, with strict en- cement of its provisions,[6] the bondholder's investment is given a greater asure of security than if no accumulation fund were provided. The urity of the investment added by the accumulation fund normally ults in a lower interest rate on the bonds.

Debt retirement accumulation funds have been given the name of nking funds" and although the name is not fully descriptive it is easy to and has been perpetuated. Henceforth in this chapter it will be given conventional usage.

There appears to be little reason for use of a sinking fund for interest yments. The purpose of a sinking fund is to spread, by means of riodic contributions during the bond issue's life, the burden of liquidat- g a large debt at a single date. The same is not true of interest payments; nature they are periodic charges of relatively small amounts and, so ny believe, should be financed, period by period, directly from peri- ic revenue. This does not preclude financing and administering interest yments through a debt service fund, but merely separates interest ovision and payment from sinking fund operations. Latest recommen- tions of the National Committee on Governmental Accounting favor yment of both interest and principal through the same fund.

A sinking fund is accumulated from one or more of three possible urces:

Additions by contributions or tax levies and interest and penalties on taxes.
Additions from earnings on investments of contributions, tax levies, and earnings.
Increases in value of investments between the time of acquisition and the time of sale.

relatively small sinking fund might be planned on an informal basis ithout providing for exactly equal contributions from each year's public venue and, therefore, an unequal periodic burden upon taxpayers. For rge sinking funds (also small ones) the periodic demands upon public venue can be equalized, theoretically at least, by preparation of a sinking ind table based upon sound actuarial principles. This means that by plication of actuarial principles it is possible to plan the accumulation of ıy given amount, to be completed at any future date, with exactly equal

[6] About 1950, an Indiana city retired a debt which had been incurred about 1870 help finance a railroad's entrance into the city. The original debt called for a fund finance retirement of the debt. Levying of taxes to finance the retirement fund was ot made mandatory and city officials saw fit to neglect them. The railroad had been andoned long before the last of the debt had been paid.

contributions for all periods. For reasons to be mentioned later, *planning* such a program and *obtaining* exactly the planned results are not one and the same thing. Little generalization is possible about accounting for nonactuarial-type sinking funds because their operations follow no single pattern. However, it is believed that any technique required for nonactuarial-type funds would likely have a counterpart in accounting for serial bond debt service funds, already discussed, or actuarial-type debt service funds for term bonds. It remains, then, to select from those two types of funds whatever is needed for the nonactuarial sinking fund type. For the remainder of this chapter discussion will relate to actuarial-type funds.

Prior to 1968 it was the generally accepted position that interest payments on sinking fund bonds should not be routed through the sinking fund accounts; but in that year the official position of the National Committee on Governmental Accounting was changed to favor receiving and disbursing assets for interest payments in the fund used to account for the debt retirement provisions. This results in inclusion of interest requirements in each year's additions and each year's expenditures. However, actuarial schedules, discussed and illustrated later on, will be restricted to planning necessary provisions for *retirement* of principal.

Summary of sinking fund operation

Operation of a sinking fund on a strictly actuarial basis is conducted in the following general manner:

1. The number of accounting periods to be covered by the sinking fund will be ascertained. If the bond issue matures 20 years after the date of issue, the sinking fund should cover approximately that number of years. If semiannual compounding of sinking fund earnings is contemplated, approximately a 40-period schedule will be required. Periodic increases will consist of payments into the fund, plus earnings on fund investments. Use of actuarial methods contemplates increases of fixed amounts with periodic increases in earnings.
2. A mathematical table, based on the amount of an annuity of 1 for the required number of periods, is constructed to show how each periodic increase will be divided between additional contributions or levies and earnings on previous investments.
3. At the beginning of each accounting period an entry is made to record the required increase of assets for the period, probably differentiating between the sources of increase (contributions, taxes, and earnings), with a corresponding credit to an equity account which records the accumulation of required periodic increases. The accounts debited are in the nature of contingent assets; that is, they are budgetary in nature.
4. Current transactions of the period are recorded. These include accruals and receipts of actual assets, purchases of investments, disbursements for interest and other expenses, if any, payment of liabilities, and other less routine entries.
5. At the end of each fiscal period the temporary accounts are summarized; and the net gain or loss for the period, as compared with requirements for the period, is transferred to Fund Balance.

6. In the event that actual accumulation of assets after a number of periods has deviated materially from requirements for the same space of time, either an increase or a decrease of periodic contributions should be made, depending upon the direction of the deviation.

Sinking fund assets

Sinking fund resources include both the budgetary, or contingent, assets and the actual assets received or accrued in the name of the fund. Budgetary or contingent assets consist of the claim to receive contributions or the right to levy taxes during a period and the expectation of receiving income on assets already owned. These contingent assets are commonly described as Required Additions and Required Earnings (sometimes combined in a single account, Sinking Fund Requirements), the amount of each being based upon a previously constructed mathematical table. From these budgetary or contingent stages, sinking fund assets are converted into more valid forms, such as cash contributed by other funds or due from other funds, taxes levied by the fund, and interest accrued on investments and receivables.

Accounts of sinking funds

Owing to the limited scope of sinking fund activities, a relatively small group of accounts ordinarily suffices to record sinking fund assets. Those titles more commonly used include the following:

Required Additions
Required Earnings (sometimes combined with Required Additions, under the title, Sinking Fund Requirements)
Cash
Cash with Fiscal Agent
Taxes Receivable
Due from Other Funds
Interest and Penalties Receivable
Investments
Accrued Interest Purchased
Tax Liens

The first two accounts listed are budgetary, whereas the remainder are of the proprietary classification. Accounts recording assets subject to loss in collection—such as Taxes Receivable, Interest and Penalties Receivable, and Tax Liens—should be supplemented by valuation allowance accounts, such as the common Estimated Loss account. The Investments account may be supplemented by Premium on Investments and Discount on Investments, if the first-named account is used to record investments on the basis of par value.

Liability transactions of sinking funds are limited in number; therefore, few accounts of that category are required. Ordinarily, these would not exceed Accrued Expenses, Accounts or Vouchers Payable, Warrants Payable, Loans Payable to Other Funds and Matured Bonds Payable. Most of

the foregoing account titles are of common occurrence in government and do not require explanation. Loans Payable to Other Funds records temporary borrowing which may be required, to make investments on time for compliance with the sinking fund actuarial table. Matured Bonds Payable is a title that may be set up in the sinking fund accounts when maturity of the bond issue is about to occur. Use of this account is most advantageous when sinking fund management administers bond retirements and when actual presentation of bonds for payment is spread over a considerable period of time because of failure of bondholders to call for payment promptly after the maturity date. It is important to note an exception. Issuance of the bonds is not recorded in the sinking fund accounts, nor are the bonds shown as a liability of the fund, until the date of payment is near at hand and the bonds become a definite claim against the fund assets.

Formerly the amount which *should* be in a sinking fund (actuarial-type) at the end of a given period was shown by the balance of an account called Reserve for Retirement of Sinking Fund Bonds. Deviations from the actuarially determined balance of that account were recorded in a Surplus, or Unappropriated Surplus, account. If accumulations to date exceeded actuarially computed requirements, the Surplus account would have a credit balance. A deficiency of accumulations compared with requirements would appear as a deficit (Surplus with a debit balance). The latest pronouncement of the National Committee on Governmental Accounting recommends combination of the reserve and surplus elements under Fund Balance. The balance of this account at the end of a period will show net assets of the fund (total assets minus total liabilities) at the balance sheet date, with no account to show what *should* be in the fund in terms of net assets.

Planning sinking fund operations

Whether or not a particular sinking fund should be operated on a formal appropriation basis is not subject to determination by an invariable rule. One point of view is that the possible range of operations of a sinking fund is so narrow that nothing more is required than the original authorization to establish and operate the fund to a prescribed end. On the other hand, it may be argued that formal authorizations should be kept on a year-to-year basis, in order that its affairs may be kept under close control by the legislative body charged with responsibility for the fund. Perhaps the decision whether to employ periodic formal authorizations, with their related budgetary accounts for appropriations and expenditures, will depend upon the dictates of law or upon the volume and variety of sinking fund expenditures.

Early in the life of a sinking fund, it is necessary to construct a table of accumulations based upon the amount of the bond issue to be retired, the number of periods (quarterly, semiannual, or annual) over which it is

proposed to spread the accumulation, and the expected rate of return on investments. It is not possible to generalize as to the exact details of preparing an accumulation table to support the sinking fund. These will vary according to dates of investments in relation to receipts of contribution and according to dates of contributions in relation to paying off the debt. In other words, it depends upon whether the first contribution is received and invested at the beginning of the contribution period and whether the last contribution is invested for one period or used immediately for debt retirement. It should be noted that, at best, the accumulation schedule, although based on actuarial tables and calculations, will be nothing more than a systematic plan to guide sinking fund management. There is no widely used plan for guaranteeing that periodic contributions and earnings will exactly coincide with the amounts listed in the schedule of accumulations. Revision of the actuarial table sometimes becomes necessary. The occasions for, and method of, revision will be explained at a later time.

Ordinarily, the sinking fund and the sinking fund table will cover a period of time approximately the same as the life of the bond issue; but this is not fundamentally true. The first significant date in the table is the beginning of the first contribution or taxation period; this may or may not be the date of the initial investment of sinking fund cash. The last significant date in the table is the end of the last earning period for investments or of receiving the last contribution or taxes, whichever is latest. The schedule of accumulation will be based upon the time between the first and last significant dates, divided into interest periods. In one respect, sinking fund operations should be spread over a long period of time to minimize the annual burden on taxpayers. On the other hand, the sooner the sinking fund bonds are liquidated, the smaller the total amount of interest which the taxpayers will have to pay. While a sinking fund may be financed directly by contributions from another fund, most of the ultimate cost is upon taxpayers of one kind or another.

Accumulation schedule

To illustrate the function of an accumulation schedule in planning and operating a sinking fund, let it be assumed that a governmental unit has issued $100,000 par value of term bonds and that the provisions of the flotation dictate that assets shall be accumulated for retirement by the sinking fund method. Further, let it be assumed that plans have been made to effect the accumulation in five years, with each year's contribution being received at the end of the year, and, excepting the last year's contribution, invested at the beginning of the next at 3 percent per annum. The short life of the bonds, and annual interest payments, are not realistic but are assumed here for saving space and time. Bonds are normally issued for longer periods of time (because the cost of preparing and issuing is too large to be borne economically for short-term debts)

and interest usually is paid semiannually. An annual rate of 5 percent on the bonds, payable annually, will be assumed.

The sinking fund program described at the beginning of the foregoing paragraph represents what is commonly called an annuity: a series of *equal* additions (commonly called rents) at *equal* intervals of time. "Annuity" signifies a one-year period, but in fact the periods may be of any length so long as all are equal. The interest rate is a rate *per period.*

Annuity tables are ordinarily based upon periodical additions (rents) of 1. Conversion processes enable the determination of results when a periodical rent other than 1 is involved. In Appendix 3, Mathematical Tables, four sets of information—A, B, C, D—are found. The present requirement is to determine what addition of money at the end of each year will accumulate to $100,000 in five years, if earnings at 3 percent compound interest on additions and invested earnings can be obtained. Table D, Amount of Annuity, shows that an annuity of 1 at a 3 percent rate will accumulate 5.3091358 in five periods. However, the required accumulation is not 5.3091358 but 100,000 so it is necessary to ascertain the periodical rent which will produce that result. If a periodical rent of 1 produced 5.3091358 in five years, then the rent (addition) required to produce 100,000 is $\frac{100,000}{5.3091358}$, the quotient being 18,835.45; for present purposes, that many dollars.

Illustration 7–3

TOWN OF HOLLANSBURG

Schedule of Accumulations

$18,835.45 at the Ends of 5 Consecutive Periods at 3 Percent Compound Interest

Period	*Required Addition*	*Required Earnings*	*Total at End of Period*
1	$18,835.45	-0-	$18,835.45
2	18,835.45	$ 565.06	38,235.96
3	18,835.45	1,147.08	58,218.49
4	18,835.45	1,746.55	78,800.49
5	18,835.45*	2,364.01	99,999.95*

* The deficiency of $0.05 below the required $100,000 is the cumulative effect of dropping decimals at several places. The fifth rent should be increased to $18,835.50 to produce an accumulation of exactly $100,000.

Illustrative entries

Thus far discussion and illustration of sinking fund affairs has related only to provisions for payment of the principal of a debt. If interest is to be paid from the sinking fund, each period's contribution to the fund will have to be large enough to cover the sinking fund addition for that period

plus interest on the sinking fund bonds. In this illustration $5,000 ($100,000 × 5 percent) interest will be required each year, making a required annual payment into the fund in the amount of $23,835.45.

The following illustrative entries for the town of Hollansburg, conforming exactly to the actuarial schedule of requirements, and annual interest payments, relate to Illustration 7–3:

Current Entries, First Period

Required Additions	23,835.45	
Appropriations		5,000.00
Fund Balance		18,835.45
To record fund budget for first year. (The only expenditure to be made during the year and, therefore, the only appropriation required is for interest and other expenditure if any other were foreseen.)		
Cash	23,835.45	
Revenues		23,835.45
To record receipt of first period's required sinking fund contribution and interest payment.		
Expenditures	5,000.00	
Cash		5,000.00
To record payment of annual interest on bonds payable.		

Closing Entry, End of First Period

Appropriations	5,000.00	
Revenues	23,835.45	
Expenditures		5,000.00
Required Additions		23,835.45
To close nominal accounts.		

Current Entries, Second Period

Required Additions	23,835.45	
Required Earnings	565.06	
Appropriations		5,000.00
Fund Balance		19,400.51
To record fund budget for second year.		
Investments	18,835.45	
Cash		18,835.45
To record investment of first period contribution. (In an ordinary annuity it is assumed that each periodical contribution is received at the end of the period and invested immediately at the beginning of the next.)		
Cash	23,835.45	
Revenues		23,835.45
To record receipt of second period's required sinking fund and interest payment cash. (Payment of these two items probably would not be received simultaneously. $18,835.45 is not due until the end of the period.)		
Expenditures	5,000.00	
Cash		5,000.00
To record payment of annual interest on bonds payable.		
Cash	565.06	
Earnings		565.06
To record receipt of earnings on sinking fund investments during second period.		

Closing Entries, End of Second Period

Appropriations	5,000.00	
Revenues	23,835.45	
Earnings	565.06	
Expenditures		5,000.00
Required Additions		23,835.45
Required Earnings		565.06
To close nominal accounts.		

Current Entries, Third Period

Required Additions	23,835.45	
Required Earnings	1,147.08	
Appropriations		5,000.00
Fund Balance		19,982.53
To record fund budget for third year.		
Investments	19,400.51	
Cash		19,400.51
To record investments of second period contribution and interest cash.		

Other current entries and the closing entries for the third period will follow the pattern of similar entries for the second period.

For the fifth period, additional entries will be required: to record (1) maturity of $100,000 par value of bonds to be liquidated by the fund, (2) the conversion of investments into cash for payment of the bond, and (3) payment of the bonds. When current and closing entries for the fifth year have been journalized, the fund will have passed out of existence.

At the *end of the fourth year, after closing*, the trial balance of this debt service fund would be as follows (heading omitted):

	Debit	*Credit*
Cash	$20,582.00	
Investments	58,218.49	
Fund balance		$78,800.49
	$78,800.49	$78,800.49

Amounts in the trial balance are derived as follows:

1. Cash consists of the fourth period addition ($18,835.45) plus fourth period earnings ($1,746.55), neither of which is assumed to be invested until the beginning of the fifth period.
2. Investments consists of all additions and earning through the third period because the actuarial schedule assumes the totals of these elements have been invested at the beginning of the fourth year.

Current Entries, Fifth Period

Required Additions	23,835.50	
Required Earnings	2,364.01	
Fund Balance	100,000.00	
Appropriations		105,000.00
Fund Balance		21,199.51

Composition of the budgetary entry is as follows:

1. The required addition is the sum of $5,000 required for interest payment and the required contribution for the fifth period, which has been increased from $18,835.45 to $18,835.50 to compensate for decimals dropped.
2. The amount *credited* to *Fund Balance* is the hypothetical increase for the fifth year, the sum of required addition and required earnings.
3. The $100,000 debit to Fund Balance is the amount of that account's balance, after being increased by the current year's addition and current year's required earnings. It represents the amount appropriated to pay the bond principal to mature in the fifth period.
4. The appropriations total is the sum of the amount of interest to be paid during the year and the principal to be paid at the end of the year.

Investments	20,582.00	
Cash		20,582.00
To record investment of cash on hand at end of the fourth period.		
Cash	23,835.50	
Revenues		23,835.50
To record receipt of the fifth period's required sinking fund contribution and interest payment cash. (The sinking fund contribution is received at the end of the fifth period and is not invested.)		
Expenditures	5,000.00	
Interest Payable		5,000.00
To record liability for fifth year's interest on bond issue.		
Cash	2,364.01	
Earnings		2,364.01
To record receipt of interest earnings for fifth period.		
Expenditures	100,000.00	
Matured Bonds Payable		100,000.00
To record liability for payment of bond issue.		

It is informative to contemplate a statement of the sinking fund's financial condition (balance sheet) following the last of these entries. At that stage all that remains to be done is to sell the investments and liquidate the bond liability. Fund Balance has been reduced to 0. This can be demonstrated by starting with the fund balance at the end of the fourth period ($78,800.49), adding the fifth period revenues ($23,835.50) and earnings ($2,364.01) and subtracting fifth period expenditures ($5,000 + $100,000): ($78,800.49 + $23,835.50 + $2,364.01) minus ($5,000 + $100,000) = 0.

Extinction of the fund is accomplished through the medium of the transactions and entries which follow.

Cash	78,800.49	
Investments		78,800.49
To record sale of all investments. (Selling such a large amount of investments at exactly what they cost is highly improbable.)		
Matured Bonds Payable	100,000.00	
Interest Payable	5,000.00	
Cash		105,000.00
To record payment of bond principal and interest		

At this stage the only accounts open (showing balances) are the year's budgetary accounts, and Revenues, and Expenditures. The fifth year's closing entry, after which this debt service fund's accounts will be closed, is as follows:

Appropriations	105,000.00	
Revenues	23,835.50	
Earnings	2,364.01	
Required Additions		23,835.50
Required Earnings		2,364.01
Expenditures		105,000.00

Three observations appear to be in order to supplement the foregoing illustrations:

1. Financial operations of a sinking fund may be administered by a bank or other fiscal agent outside the governmental unit to which the fund pertains. Periodical cost of such services should be debited to Expenditures.

2. Increases in investments are not exclusively from the payment of cash but can come from amortization of discount on bonds which were acquired at less than par value. Corporate stock is undesirable for sinking fund use because the market value of stock owned might be depressed when the bonds mature.

3. Interest earning on investments may not be received in cash but realized in the form of an addition to the value of the investment, as for savings accounts and certain kinds of U.S. government bonds.

More advanced illustration

To illustrate other kinds of statements in addition to a balance sheet, it will be assumed that city of Y Sewer Bonds Debt Service Fund had the following after-closing trial balance (heading omitted) at December 31, 1968:

	Debit	*Credit*
Cash	$ 125.00	
Cash with fiscal agent	500.00	
Accrued interest receivable	320.00	
Investments with fiscal agent	85,050.00	
Taxes receivable—delinquent	1,300.00	
Estimated uncollectible taxes—delinquent		$ 120.00
Fund balance (actuarial requirement: $88,607.73)		87,175.00
	$87,295.00	$87,295.00

The following information is provided about the financial affairs of the fund during the next six months:

1. Requirements for the six months ending June 30, 1969: addition, $9,324.57; earnings, $1,329.12; appropriation for interest expense, $5,000. (Actuarial requirement, June 30, 1969, $94,261.42.)
2. Taxes levied: $9,700; estimated uncollectibles, $300.
3. Tax collections: current, $7,450; delinquent, $630.
4. Cash transferred to fiscal agent, $3,000.
5. Collection of income by fiscal agent: $1,685, including amount accrued at beginning of period.
6. Interest expense paid, $5,000.
7. Agent's report of investments purchased: $4,800.
8. Loss reported by agent in rearranging investment portfolio: $140.
9. Commission allowed to fiscal agent, from cash held by him: $300.
10. Accrued interest reported by agent at June 30, 1969: $360.

The fund trial balance (heading omitted) at June 30, 1969, would appear as follows:

	Debit	*Credit*
Cash	$ 205.00	
Cash with fiscal agent	85.00	
Accrued interest receivable	360.00	
Investments with fiscal agent	89,710.00	
Taxes receivable—current	2,250.00	
Estimated uncollectible taxes—current		$ 300.00
Taxes receivable—delinquent	670.00	
Estimated uncollectible taxes—delinquent		120.00
Fund balance		92,828.69
Required additions	9,324.57	
Required earnings	1,329.12	
Appropriations		5,000.00
Revenue		9,400.00
Earnings		1,725.00
Interest expense	5,000.00	
Loss on investments	140.00	
Commission to fiscal agent	300.00	
	$109,373.69	$109,373.69

The last two items in the above trial balance could have been recorded as debits to Earnings, but to list them individually produces a more informative statement of operations.

Making closing entries would refine the trial balance to its most convenient form for preparation of a balance sheet, but to show another balance sheet would be unproductively repetitious.

Other sinking fund statements

Two other statements of value in sinking fund management are:

1. Statement of cash receipts and disbursements (Illustration 7–4).
2. Statement of revenues, expenditures, and fund balance (Illustration 7–5).

The general structure of these statements will be illustrated by employment of information included in the June 30, 1969 trial balance.

Illustration 7–4

CITY OF Y

Sewer Bond Debt Service Fund
Statement of Cash Receipts and Disbursements
Six Months Ended June 30, 1969

Cash balance, December 31, 1968		$ 125.00
Receipts:		
Tax collections—current	$7,450.00	
Tax collections—delinquent	630.00	
Total receipts		8,080.00
Total beginning balance and receipts		$8,205.00
Disbursements:		
Interest expense on bonds	$5,000.00	
Transferred to fiscal agent	3,000.00	
Total disbursements		$8,000.00
Cash balance, June 30, 1969		$ 205.00

A statement of similar form and content should be submitted by the fiscal agent, along with a statement of changes in the investments held for the fund.

Illustration 7–5

CITY OF Y

Sewer Bond Debt Service Fund
Statement of Revenues, Expenditures, and Fund Balance
Six Months Ended June 30, 1969

Revenues:		
Taxes		$ 9,400.00
Interest earnings		1,725.00
Total revenues		$11,125.00
Expenditures:		
Interest expense	$5,000.00	
Loss on investments	140.00	
Commission to fiscal agent	300.00	
Total expenditures		5,440.00
Excess of revenues over expenditures		$ 5,685.00
Fund balance, December 31, 1968		87,175.00
Fund balance, June 30, 1969		$92,860.00
Actuarial requirements, June 30, 1969		94,261.42
Deficiency of fund balance compared with actuarial requirement		$ 1,401.42

Some special transactions of sinking funds

Improper management of sinking funds, unexpected deficiencies of sinking fund revenues compared with costs, defaults of sinking fund

investments, and possibly other factors, may retard the fund in accumulating the amount required to pay a debt at maturity. Two kinds of remedy are available:

1. If a sizable deficiency develops several periods before maturity of the related debt, the fund may be revised to call for larger periodical additions and greater earnings on investments.
2. If the prospective deficiency is of relatively minor size, it may be supplied by a contribution from another fund. This method, if at all applicable, is recommended for its simplicity.

Revision of an actuarial schedule is somewhat complicated and will be explained later in this chapter. For the interfund contribution the following simple entry, amount of deficiency assumed, will suffice:

Cash	8,000.00	
Fund Balance		8,000.00
To record contribution from general fund to eliminate sinking fund deficiency.		

To avoid possible losses from fluctuation of market price, sinking fund investments should be confined to well-seasoned debt instruments, which virtually means high-grade bonds. It is infrequent for even the best of bonds to be selling at exactly par value, so that in most cases they are acquired at more or less than par value. As they approach maturity their market value tends to approach par value, the amount which will be received by the holder of the bond at maturity. If $10,000 par value of bonds were purchased for $9,600 at a date eight years before maturity, the annual amount of approach toward maturity value (using straight-line amortization) would be an earning of $50, to be recorded as follows:

Investments	50.00	
Earnings		50.00
To record increase in carrying value of bonds held as investments.		

If the bonds had been purchased for $10,400 eight years before maturity, the annual approach towards maturity value would be an offset against the fund's income from interest, to be recorded as follows:

Earnings	50.00	
Investments		50.00
To record decrease in carrying value of bonds held as investments.		

Accounting for investments may be much more sophisticated than indicated by the preceding discussion and entries. A more detailed discussion

of accounting for investments and the earnings therefrom will be found in Chapter 8.

A common and very prudent practice in management of sinking fund investments is the purchase of bonds for which a given fund has been established. Thus, if a sinking fund has been established for retirement of the City of Y's sewer bonds, management of the fund may purchase some of the sewer bonds, if available, from sinking fund cash. This policy may possibly bring a twofold gain:

1. The interest rate on the sewer bonds may be higher than that on the high grade securities normally acquired for sinking fund investments.
2. To the extent of the purchase, risk of loss from default on principal and interest payments is eliminated. If the bonds and interest are defaulted as sinking fund assets, it is because the governmental unit has defaulted them as liabilities, the one canceling the other.

Prior to 1968 the generally recognized rule was that a bond or other debt of a governmental unit, acquired by the sinking fund for retirement of the debt, should be kept alive in the sinking fund, to avoid disturbance of the actuarial schedule due to having its principal and interest requirements reduced. In 1968 the National Committee on Governmental Accounting revealed a change of position on the matter and now advocates that bonds acquired by the sinking fund established to liquidate them should be removed from the sinking fund by an entry such as the following (amount assumed):

Fund Balance	9,800.00	
Investments		9,800.00
To record retirement of bonds held by sinking fund.		

Combinations of debt service funds

All of the preceding discussion has been in terms of a single debt service fund. Actually, a governmental unit may have a number of them. If the number exceeds four or five, or if the law so requires, each fund probably should be accounted for individually, as described and illustrated above. However, beneficial combination of the funds may be practiced in the preparation of financial statements, by use of a separate column for the account balances of each fund, with a total column to include the total of each item for all funds, as shown below:

CITY OF Y

Debt Service Funds
Combined Balance Sheet
June 30, 1969

Assets	*Total*	*Refunding*	*Fire Station*	*Sewer*	*Others*
Cash	$29,000	$2,500	$4,500	$6,000	$16,000

Use of the above arrangement has definite limitations if the governmental unit has a large number of debt service funds. A compromise form would consist of a single balance sheet showing item totals for all funds, with supporting schedules detailing each fund's share in each item. Separation of fund accounts does not compel separation of assets by funds. If not forbidden by law, assets may be pooled for all funds, with exact rules for ascertaining each fund's equity in each kind of asset. Thus, cash of all debt service funds may be kept in one bank account, and one investment portfolio may serve for all. Subsidiary ledgers may be utilized advantageously in connection with such an arrangement.

If the number of debt service fund bond issues does not exceed three or four at one time, merger of debt service fund accounting may go even further than explained above. There may be no segregation of accounts among individual funds but only a statement of each fund's requirements at a given time. This means that the only classification by funds will be done in the fund balance section of the balance sheet; and even there, the segregation will be based not upon ledger accounts but on the records for the individual funds represented. With one exception, fund identity will be ignored in the ledger accounts. This exception is Matured Bonds Payable, which, when recorded in the ledger, should be shown as pertaining to a specific issue, with a title such as Matured Bonds Payable—Community Center. The simple balance sheet in Illustration 7–6 shows the effect of the plan discussed above.

In the debt service fund group of ledger accounts, the Fund Balance account will show a balance of $190,800; the analysis shown in the balance

Illustration 7–6

CITY OF Y

Debt Service Fund
Balance Sheet
June 30, 1969

Assets

Cash		$ 1,600
Taxes receivable	$ 20,000	
Less: Estimated uncollectible taxes	800	19,200
Investments		250,000
Total Assets		$270,800

Liabilities and Fund Balances

Liabilities:		
Matured bonds payable—Community Center		$ 80,000
Fund balances:		
Refunding	$ 20,000	
Fire Station	60,000	
Sewer	110,800	
Total fund balances		190,800
Total Liabilities and Fund Balances		$270,800

sheet in Illustration 7–6 is derived from individual records for each issue of bonds.

Revision of sinking fund schedule

In all of the preceding discussion and illustrations, variations between required increases and actual increases of assets have been of relatively small amount, the total of which might be compensated at maturity of the bonds by a contribution from some other fund. If variations between calculated and actual increases are large in amount, the situation would seem to call for a thoroughgoing revision of the sinking fund table as well as adjustment of periodic contributions, from whatever source obtained. In preparing a revised sinking fund schedule, two separate factors will have to be taken into account, as follows:

1. Present accumulation of assets in the fund, plus earnings on that amount until the end of the sinking fund period.
2. Subsequent contributions to or taxes for the fund, plus earnings thereupon until the end of the sinking fund period.

Having ascertained the value of item 1, the difference between the amount of bonds to be retired and the value of item 1 will be the amount to be provided by item 2. This amount will be the basis of a new schedule of accumulation. Periodic *earnings* under the revised plan will be the sum of (1) the earnings on contributions under the new plan, plus (2) earnings on assets which had been accumulated under the original plan. If accumulation of assets has been running ahead of requirements according to the schedule because of unexpectedly favorable earnings, the logical adjustment is reduction of periodic contributions; on the other hand, if a deficit has arisen because of actual earnings falling short of expectations, an increase in the amount of periodic contributions would be in order, since it is not easy to bring about a material increase in the earning power of investments.

Taking as an example a fund in arrears, let it be assumed that at a given date—say, 10 periods before the scheduled completion of the sinking fund—the following relationship exists:

Actuarial requirements to date, per accumulation table	$127,872
Fund balance at present date	113,481
Deficiency of accumulation	14,391

The amount of deficiency has no direct part in the computations which follow.

Further, let it be assumed that the total accumulation scheduled for the fund is $300,000. These figures mean that net assets accumulated in the fund equal $113,481 and that $186,519 ($300,000 minus $113,481) must be

added during the next 10 periods. This addition will be accomplished in two ways, as follows:

1. By compound interest on the net amount now in the fund.
2. By 10 equal contributions or rents, at compound interest.

Stated otherwise, the $300,000 will be accumulated in two ways, as follows:

1. By the compound amount of $113,481 for 10 periods.
2. By 10 equal contributions or rents, at compound interest.

The contribution of item 1 in accumulating $300,000 may be computed as follows, employing round dollars to economize on time:

Item 1:

a) Amount in fund at time of calculation: $113,481
b) Number of periods to completion of schedule: 10
c) Assumed rate of return for compounding: 2 percent
d) Compound amount of 1 for 10 periods at 2 percent: 1.21899442 (Appendix 3, Table C)
e) Compound amount of $113,481 for 10 periods at 2 percent = $113,481 times 1.21899442 = $138,333

If the amount presently in the fund would accumulate to $138,333 in 10 years, the amount to be supplied by additional contributions and earnings thereon would be $300,000 minus $138,333, or $161,667, or the amount carried to item 2.

The contribution of item 2 in accumulating the $300,000 may be computed as follows:

Item 2:

a) Amount required to be accumulated through this item: $161,667
b) Amount to which periodical contributions of 1, compounded periodically at 2 percent would amount in 10 periods: 10.9497210 (Appendix 3, Table D)

If periodic contributions of 1 will accumulate to 10.9497210, then the periodic contribution required to accumulate to $161,667 is $\frac{\$161,667}{10.9497210}$, or $14,764 in round dollars.

The process embodied in item 1 is the same as putting a given amount in a savings account and leaving it for 10 periods, compounded at 2 percent per period. The process embodied in item 2 is the same as putting a given amount in a savings account at the *end* of each of 10 periods, to be compounded at 2 percent per period. The table cited for item 2 is for the amount of an *ordinary* annuity, in which process each contribution is made at the end of the period. Both items 1 and 2 could be calculated by ordinary arithmetic but the actuarial tables give information in precalculated form. The table in Illustration 7–7 demonstrates the plan of the

Illustration 7–7

Period	Required Contribution	Required Earnings	Fund Balance— End of Period
1	$14,764	$2,270	$130,515
2	14,764	2,610	147,889
3	14,764	2,958	165,611
4	14,764	3,312	183,687
10	14,764	5,593	300,000

refinancing program; how the plan is actually operated is the responsibility of the debt service fund management. Execution of the plan practically demands revamping of the supporting contribution or taxation program because a greatly increased flow of earnings without additional investment is not easily achieved.

The table shown in Illustration 7–7 demonstrates the planned results of the financial reorganization of the fund. The following points are noteworthy:

1. This is a partial accumulation table for the last 10 years.
2. Although the debt service fund had net assets (fund balance) of only $113,481 at the moment of conversion from the former to the present schedule, it would have, according to the new schedule, net assets (fund balance) of $130,515 at the end of the first period. This would evolve as follows, according to the schedule:

a) In the fund at the beginning of the first period (from item 1, p. 179)	$113,481
b) Earnings on beginning balance at 2 percent	2,270
c) Contribution under the new schedule at the end of the first period (from item 2, p. 179)	14,764
Planned accumulation, end of first period	$130,515

The table does not represent a bona fide ordinary annuity table because it had earning power ($113,481) *during* the first period. After the first period it operates as an ordinary annuity, that is, with periodic rents (additions) at the *ends* of the periods.

Present status of debt retirement funds

A survey of the governmental finance field reveals that retirement fund bonds are on the decline at least percentagewise. Possible reasons for this are the following:

1. Quite frequently in the past, governmental debt retirement funds have been improperly administered, with the result that bond issues have at times matured without the sinking fund having been built up to provide means for payment. Governmental officials are always reluctant to levy any more taxes

than absolutely necessary, especially to pay for a benefit already received; consequently, sinking fund contributions often have not been enforced.

2. The cost of administering a sinking fund may add materially to the cost of the debt.

3. In periods of low interest rates, it is difficult to find acceptable investments which provide any considerable margin over the cost of operating the fund, so there will be only small earnings to be added to investments.

4. Serial bonds spread the burden of debt over the life of the issue, although not as evenly as do sinking fund bonds; and they avoid the management problems and costs attached to sinking funds.

Although actuarial-type sinking funds for bond retirement are diminishing in importance, the underlying principles of actuarial planning and accumulation have become of prime importance in the area of pension and retirement funds. Such funds are special forms of trusts. Accounting for trust funds is explained in the next chapter.

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QUESTIONS

1. Term bonds to be retired by a debt service fund are recorded in the fund during the period of liquidation. Why are they not recorded in the fund during the other periods of its life?
2. It is conceivable that a normal debt service fund for an issue of serial bonds might be financially nonexistent at the ends of some fiscal periods during its total life, i.e., have no assets or liabilities and, necessarily, no fund balance. How can such a thing come about without irregularity?
3. Considering the cost of fiscal agents' fees and commissions, what reason can there be for debt service fund investments to be managed by inde-

pendent agencies, as compared with management by the governmental unit's own employees?

4. This chapter makes no mention of comparison of periodic statements for debt service funds. Does this appear to be an organic omission or is there a positive reason for it?
5. One argument advanced in favor of financing with term bonds secured by some sort of a sinking fund is that earnings on investments held by the debt fund will reduce the amount of support required from other sources. What is your opinion of the validity of this argument?
6. It is said that a sinking fund accumulation schedule for a debt service fund is virtually a budget for the entire life of the fund, excepting requirements for interest payments. Explain this statement.
7. In an ordinary annuity for 10 periods, for how many periods does the first contribution (rent) theoretically earn interest? The last?
8. With respect to Illustration 7–7 it may be said that the first period entries do not qualify as part of an ordinary annuity. Why not?
9. A municipality, desiring to maximize earnings on its debt service fund investments, acquired an amount of preferred stock of good quality. Comment on the wisdom of this action.
10. A southern city operates a large-scale actuarial-type debt service fund which is financed largely by vending machine licenses, various kinds of fees, and a variable amount from the general fund. Why does the general fund contribution need to be variable?

PROBLEMS

1. In 1968 the town board of Sullivan voted to refund an issue of 5½ percent general bonds scheduled for lump-sum maturity on January 1, 1969. Par value of the outstanding issue was $600,000.

   Necessary legal steps were taken and a new issue, of the same amount was formally approved. The bonds were sold in 1968, to be dated January 1, 1969, at 98¾. The deficiency of money required for retiring the refunded issue was supplied by a general fund contribution.

   The old issue was recorded as a liability of the 5½ percent Bonds Debt Service Fund on January 2, 1969. From time to time, bonds were received for payment, until all but $20,000 had been received and paid by the end of 1969. At that time $20,000 cash, with all pertinent information available, was sent to a trust fund for custody until called for or subsequent transfer to the general fund at the end of 10 years.

   You are required to do the following things, with no formal budget:

   a) Record the old bond issue in the 5½ Percent Bonds Debt Service Fund.
   b) Record revenue from sale of the new issue of bonds.
   c) Record the general fund's contribution.
   d) Record retirement of the bonds presented for payment.
   e) Make the required entry for the $20,000 of bonds.
   f) Closing entry is not required.

2. The city of Portsmouth issued, in 1949, $500,000 of 4½ percent term bonds, scheduled to mature July 1, 1969. Early in 1968 only $100,000 had

been accumulated to apply on retirement of the bonds so a proposal was made to refund the remainder with 5 percent serial bonds, to mature at the rate of $25,000 every two years, beginning June 30, 1971. Enough bondholders accepted the proposal to make it feasible and the budget for the fiscal year ending June 30, 1969 was set up to pay all of that year's interest and $100,000 to bondholders. The $100,000 represented by the fund balance was in an interest-bearing cash account.

The following transactions occurred in the term bonds debt service fund during fiscal 1969:

(1) Complying with rules of the fund a formal budget was recorded for the year.
(2) During the year the general fund supplied enough cash revenue to pay all interest.
(3) The $100,000 of bonds were recorded as liabilities.
(4) Interest for the year and the bond liability were paid.
(5) All remaining open accounts were closed.

The following transactions occurred in the serial bonds debt service fund which is not required to prepare a formal annual budget:

Year ending June 30, 1970:

(1) The amount to be contributed by the general fund for fiscal 1970 interest and half of the 1971 maturity of bonds was recorded as revenue.
(2) The amount due from the general fund was received.
(3) The amount received for the 1970 serial payment was invested, the interest to be paid directly to the general fund.
(4) Fiscal 1970 interest was paid.
(5) The necessary closing entries were made.

Year ending June 30, 1971:

(1) The amount to be contributed by the general fund was recorded.
(2) The investments were sold at a gain of $100 which was paid directly to the general fund.
(3) The total amount to be paid from the fund during fiscal 1971 was recorded in the proper liability accounts.
(4) The general funds contribution was received.
(5) Liabilities of the fund were paid.
(6) The necessary closing entries were made.

You are required to do the following things:

a) Make the necessary entries for the term bonds debt service fund. Explanations may be omitted.
b) State why $400,000 of the term bonds were not recorded in the term bonds debt service fund.
c) Make entries in separate groups for transactions of the years ending June 30, 1970 and 1971. Explanations may be omitted.
d) State why budgetary entries were not important enough to be required.
e) State what the financial condition of the fund was after closing at June 30, 1971, and give the reason.
f) State the amount of contribution required from the general fund in

the year ending June 30, 1972, following the pattern of the two preceding years.

3. On June 30, 1961, the city of Ashland issued $800,000 par value of general improvement serial bonds, paying 5 percent per annum, to be called in blocks of $100,000 each every two years, beginning June 30, 1963. To extinguish the debt a special tax levy was authorized. At June 30, 1968, the fund had the following trial balance (heading omitted):

	Debit	*Credit*
Cash	$16,000	
Taxes receivable	24,000	
Estimated uncollectible taxes		$13,000
Investments (cost)	54,000	
Accrued expenses		1,200
Fund balance		79,800
	$94,000	$94,000

During the fiscal year ending June 30, 1969, the following transactions occurred:

(1) For fiscal year 1969 the city council approved for the fund a budget consisting of estimated revenues of $75,000 and appropriations of $128,000.
(2) A tax levy of $40,000, with estimated losses of $3,000, was approved.
(3) A grant approved by an agency of the federal government in the amount of $35,000 was recorded as due.
(4) Tax collections during the year totaled $36,000, and $2,000 of taxes were written off as uncollectible.
(5) Earnings on investments amounted to $2,500 and were received in cash.
(6) The year's requirements for payment of principal and interest were recorded.
(7) Miscellaneous expenses were paid during the year in the amount of $3,000, which included the amount accrued at the end of fiscal 1968.
(8) The amount due from the federal government was received.
(9) Investments which had been purchased at a cost of $51,000 were sold at a loss of $200 (Expenditures).
(10) Bond and interest payments for the year were made.
(11) Closing entries were made.

You are required to do the following things:
a) Prepare a schedule beginning with fiscal year 1962 and extending through fiscal 1970, showing the bond principal outstanding during the year and the amount of interest required for each year.
b) Record the June 30, 1968 trial balance and the transactions for fiscal 1969. Transactions may be recorded by journal entries posted to ledger accounts, by direct posting of transactions to ledger accounts, or by use of a worksheet. If a worksheet is used, five lines should be provided for cash, three each for revenues and expenditures, and two each for taxes receivable and estimated uncollectible taxes.
c) Show in some form a before-closing trial balance for June 30, 1969.
d) State why the bonds still unpaid at June 30, 1969 are not included in the general improvement serial bonds debt service fund.

4. On January 1, 1969, the town of Montgomery issued $600,000 par value of 20-year 5 percent term bonds to finance a program of general improvements. It was decided to establish a nonactuarial-type sinking fund to liquidate the debt at maturity.

The following specifications were established:

(1) The fund was to be designated "20-year Bonds Service Fund."
(2) The accumulation schedule was to be constructed on the straight-line basis with annual required additions of $53,000 and required earnings of $7,000, even though actual earnings would be much less than $7,000 for several years.
(3) Payments to the fund for the first several years would be at the rate of $53,000 per annum.
(4) When the fund balance became equal to the number of years multiplied by $30,000, annual excess of earnings over $7,000 were to be classified as additions and the general fund's annual contribution reduced accordingly.
(5) The general fund addition was due at the *beginning* of each year.

Transactions for 1969 were as follows:

(1) The annual budget for 1969 was recorded.
(2) $23,000 of the year's required addition was received from the general fund.
(3) Bonds having a par value of $22,000 were purchased at a cost of $21,500, which included $100 accrued interest (debit Accrued Interest Purchased.)
(4) Money for paying six months' interest on the bonds was received from the general fund.
(5) Six months' bond interest was paid.
(6) Interest received on investments during the year amounted to $1,100, which included the amount purchased.
(7) Additional investments of a par value of $1,100 were purchased at a cost of $1,050.
(8) The remainder of the year's interest requirement was received.
(9) Checks for the second six months' interest were issued on the last day of the year.
(10) The amount of discount on investments to be amortized for the year was computed at $40 and this was recorded.

You are required to do the following things:

a) Record by journal entries and posting, or by direct posting from transactions, the financial activities of the 20-year Bond Debt Service Fund during 1969.
b) Prepare a before-closing trial balance.
c) Make a journal entry for closing the necessary accounts at the end of 1969.
d) After the fund had accumulated to the number of years multiplied by $30,000, earnings in excess of $7,000 were to be applied to reduce the required addition. What is the significance of the number of years multiplied by $30,000? Why, after that, can the excess of earnings over $7,000 be used to reduce the amount of required contribution?
e) State the theoretical inferiority of this kind of a sinking fund compared with the actuarial-type fund.

5. *a*) A municipality plans to provide for retirement of $200,000 of term bonds by annual additions to an accumulation fund. There will be 10

years in which to accomplish the plan and it is estimated that a net of 3 percent per annum can be realized. To determine the annual rent required it is necessary to know the amount of an annuity of 1 for 10 periods at 3 percent per period. Contributions to the fund will be made at the end of each period.

Show by simple arithmetic the amount of an annuity of 1 for *three periods at 3 percent.*

b) An alternative to periodical rents would be the investment of a single amount at the beginning of the first year, expecting it to accumulate to the required amount at the end of 10 years.

Show by simple arithmetic the amount to which an investment of 1 would accumulate in three years if made at the beginning of the first year, with interest at 3 percent.

c) Table D in Appendix 3 shows the amount of an annuity of 1 for 10 periods at 3 percent to be 11.4638793. How much of that amount is earnings?

d) Rounding the above amount to 11.46, compute the amount of periodical contribution (rent) required to accumulate to $200,000 at 3 percent in 10 years.

e) Table C in Appendix 3 shows that at 3 percent, a contribution of 1 would accumulate to 1.34391638 at the end of 10 periods. Rounding that amount to 1.34, how much of an investment would be required to accumulate to $200,000 at the end of 10 periods?

6. An audit of the accounts of the city of Bellvue for the year ended December 31, 1968, revealed the following significant information about the City Hall Bonds Service Fund which had been in operation for some years:

Required balance, this date, per actuarial schedule	$673,429
Fund balance	625,742
Deficiency	47,687

The fund had been established to accumulate $900,000 for retirement of term bonds scheduled to mature on January 1, 1974. Since the deficiency had been steadily increasing, the city administration decided to set up a new schedule and program for the remaining five years. The major changes made were:

(1) Reduction of interest rate for earnings from 5 percent per annum to 4 percent per annum, compounded annually.
(2) Increase in periodical contribution (amount to be determined by student).

The following actuarial information is given:

(3) Amount of 1 for five periods at 4 percent is 1.21665290 (round to 1.217).
(4) Amount of an annuity of 1 for five periods at 4 percent is 5.4163226 (round to 5.416).

You are required to do the following things:

a) Calculate how much of the $900,000 will be provided by the present

balance if it earns at the rate of 4 percent compounded annually for the next five years.

b) Determine how much of the $900,000 will have to be supplied by contributions and earnings during the next five years.

c) Calculate the amount of annual contribution which will be required during the next five years, compounded at 4 percent per year, to produce the amount calculated in (2) above.

d) Prepare an accumulation schedule based on Illustration 7–7 for the revised plan. Because of dropping decimals, the contribution at the end of the last period will have to be adjusted to produce a total of exactly $900,000.

e) Remembering that the fund had been in operation for some time, make the budgetary entry for the first period of the revised program.

CONTINUOUS PROBLEM*

7–L. The city of Bingham created a College Bond Debt Service Fund to be used to retire the bonds issued to pay for the construction of the I. L. Grimes Junior College (see Problem 6–L), and to pay the interest on these bonds.

You are required to:

a) Open a general journal for the College Bond Debt Service Fund and record the transactions below, as necessary. Use account titles illustrated in Chapter 7.

(1) The budget for the year was legally adopted. The budget provided estimated revenues equal to the appropriations for one year's interest on the college bonds and the redemption of the first block of bonds (see Problem 6–L for data concerning the bonds).

(2) Mr. I. L. Grimes contributed to the College Bond Debt Service Fund a sum of money which, if invested at 5 percent compounded semiannually, would be just exactly large enough to pay the first interest installment due in six months, the second interest installment due at year-end, and to redeem the block of bonds due at year-end. The money was so invested.

(3) Cash equal to the premium on the college bonds was received from the College Construction Fund (see transaction 1, Problem 6–L). The premium is not to be amortized; credit Revenues for the entire amount.

(4) $50,000 face value of noninterest-bearing U.S. Treasury notes, maturing in 180 days, were purchased to yield 4 percent per annum.

(5) $50,000 face value of Crawford County bonds bearing interest at 3.5 percent payable M and S 1 were purchased to yield 4 percent. The bonds will mature in 15 years from date of purchase.

(6) Six months' interest on the Crawford County bonds was received. (Use the appropriate amount shown in your solution to requirement *b*.)

(7) Interest due on the college bonds at the end of the first six months was paid. Cash in the exact amount of the interest payment was withdrawn from the investments purchased from Mr. Grimes' contribution.

(8) The U.S. Treasury notes matured and were paid at par.

(9) Interest due on the college bonds at the end of the second six months was

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* If the students have not been introduced to "scientific amortization" in preceding courses, Problem 7–L should be assigned after Chapter 8, which contains a discussion of the topic.

paid, and a block of bonds redeemed. Uninvested cash was used for these payments, supplemented by cash withdrawn from the investments purchased from Mr. Grimes' contribution.

(10) Six months' interest on the Crawford County bonds was received. (Use the *appropriate amount shown in your solution to requirement b.*)

(11) Cash to close the College Construction Fund was received by the College Bond Debt Service Fund.

(12) Prepare closing entries for the period.

b) Prepare a discount amortization schedule for the Crawford County bonds purchased in transaction (5), using the "scientific" method.

c) Open a general ledger for the College Bond Debt Service Fund, and post the journal entries for the period.

d) Prepare a balance sheet for the College Bond Debt Service Fund as of the end of the period.

Chapter 8

Trust and Agency Funds

Trust funds and agency funds are employed by individuals, institutions, governmental bodies, and others to assist in administration of, and accounting for, assets held under trust or agency agreements. As applied to public affairs, it may be said of trust funds that they are legal and accounting devices used by governmental units in discharging their responsibility for property of which they do not have absolute ownership but which must be utilized for a certain purpose or group of purposes. Agency funds are legal and accounting devices used by governmental units (and others) for administering assets that come into their possession incidentally in connection with the discharge of some responsibility resting upon them by virtue of law or other similar authority. In practice the legalistic distinctions between trust funds and agency funds are not of major significance. The important and perhaps the sole consideration from an accounting standpoint is: What can and what cannot be done with the fund's assets, in accordance with laws and other pertinent regulations?

Trust funds annually become more important in government because:

1. The number of public employee retirement and pension funds increases each year, and the magnitude and complexity of these funds grow with increased membership and assets.
2. Each year more and more money and property are being placed in the custody of governmental units, by both private and governmental agencies, to be administered by the units as trustees.

The name of a particular fund is not a reliable criterion for determining the correct accounting basis for trust and agency funds. Merely calling a fund by one name or another has no influence upon the transactions in which it may engage. In fact, the words "trust" and "agency" are frequently omitted from the titles of funds in this classification. Examples are "public employees' retirement fund" and "condemnation and grading fund": the former a trust fund, the latter an agency fund, each classified according to the circumstances under which its assets are held. It is

sometimes said that a practical basis for distinguishing between the two types is the length of time specific assets are held. But this is not a wholly reliable guide, since there is no generally recognized pronouncement stating the maximum time restriction for holding assets to constitute an agency fund; nor is there a minimum time to constitute a fund of the trust variety. As suggested earlier, if not explicitly so stated, the exact name or designation of a given fund is of little significance in establishing its accounting procedures and limitations; these depend upon the enactment that brought about creation of the fund, plus all other regulations under which it operates. These latter (regulations) include other pertinent statutes, ordinances, wills, trust indentures and other instruments of endowment, resolutions of the governing body, general purposes of the fund, kinds and amounts of assets held, etc. This aggregate of factors, or such as are applicable to a given fund, determines the transactions in which it may and should engage.

CHARACTERISTICS OF TRUST AND AGENCY FUND ACCOUNTING

Agency funds

An agency fund comes into existence because the governmental unit, in its capacity as agent for accomplishing some particular mission, becomes incidentally a custodian of assets. When this occurs, accounts are required to record not only the assets received but also the liabilities to those for whose benefit they were received. The other major transaction or transactions of the fund will be disbursement of the assets to their real owners. Although revenue and expenditure transactions are not impossible for an agency fund, they are not typical. Furthermore, an agency fund will have little or no surplus; the proceeds of any fee levied for the service rendered belong to some other fund and should be shown as a liability to that fund.

An excellent specimen of the agency fund classification is the instrumentality that governmental units establish to record collection and remission of taxes which they, as agents, administer for some other governmental unit or units. For example, a county may serve as collecting agent for taxes levied by the state government, cities and towns, and townships. Its responsibility is to effect transfer of assets from taxpayers to the governmental units it serves as agent. It comes into custody of assets incidental to its mission of bringing about the transfer, but acquires no element of ownership, except for what it may charge as agent's fees.

Classification of trust funds

Trust funds are variable in nature, depending upon the specific authorization and restrictions under which they operate. They are classified on one basis as to what assets, if any, may be paid out from the fund; whereas another classification refers to the beneficiaries. As to distribution or retention of assets, trust funds are:

1. Expendable.
2. Nonexpendable.
3. Expendable as to income but nonexpendable as to corpus or principal.

As to beneficiaries, trust funds are of two kinds:

1. Private.
2. Public.

Expendability or nonexpendability relates to principal and to *net* income, also referred to as net earnings and net revenue. Trust funds are described as expendable if terms of the trust provide that all, or substantially all, assets paid into the fund will be paid out sooner or later in the normal operations of the fund. Expendable trust funds may be either semitemporary or permanent. The semitemporary ones are those used to account for a lump sum of assets delivered to the trustee to be disbursed for such benefits as scholarships, grants-in-aid, and other forms of award which will eventually exhaust the total amount delivered, even including any possible earnings during the trusteeship. Expendable trust funds of the permanent type are illustrated by pension funds. Although the fund as an entity may have no specified termination date, all assets paid into the fund, plus net earnings on investments, are expected to be disbursed to beneficiaries of the fund.

Nonexpendable trust funds are those used to account for assets delivered to a trustee to be employed for some stipulated purpose or in a given manner, with the auxiliary provision that there be no reduction in the principal of the fund. If beneficiaries of a nonexpendable trust fund are charged interest for the use of money, or if income is realized from investments, the net gain must be added to the principal. A good example of a fully nonexpendable trust fund is a loan fund, operated with or without interest charges to the borrowers, but always with the requirement that the loan principal must be repaid in full. Note that occasional expendable transactions may accidentally occur, even though the fund is intended to be nonexpendable. Examples are uncollectible loans made by a loan fund and partial or total loss of an investment by any nonexpendable fund.

Trust funds nonexpendable as to principal but expendable as to earnings are those established with the idea of providing permanent support of a particular activity. Funds of this type require meticulous discrimination in classification of transactions to the end that net income may be determined exactly and that impairment of the fund principal may be prevented. All transactions of expendable-income, nonexpendable-principal trusts may be accounted for in a single set of accounts; or income may be accounted for in a set of accounts separate from those used for fund principal transactions. In the absence of special conditions, such as fewness of transactions, the latter method is ordinarily preferable. It produces a clearer separation of the two groups of transactions. Trusts to provide

deferred until cash is received from the general fund, in which case Cash would be substituted for Due from General Fund in the above formal entry. To facilitate preparation of statements of cash receipts and disbursements, some agency (and trust) funds employ temporary receipts and disbursements accounts, both of which are closed to Fund Balance.

The Fund Balance account in the above entry is actually a liability account, since it represents a debt due the federal government; and, in fact, Due to Federal Government might well be substituted for the less specific title. Even though the entire liability is owed to one creditor, the account partakes of the nature of a control because its balance includes amounts for which individual employees must be given credit, according to details shown on individual earnings records. Remittance of taxes withheld may be recorded as follows:

Fund Balance	450	
Cash		450

Although employers receive no compensation for services in collecting and remitting federal taxes, governmental agents sometimes are allowed other fees. Let it be assumed that an agency fund is operated on a part-time basis by regular employees of the general fund, which charges for the time consumed. Liability for payment for the employees' services would be recorded by the agency fund as follows, amount assumed:

Fund Balance	150	
Due to General Fund		150

Payment of the fee would require a debit to the Due to General Fund account, with a credit to Cash.

A slightly more complicated form of agency fund, for collection and remittance of property taxes levied by other agencies, will be explained in Chapter 15, on property taxes.

Accounting for trust funds

Operations of a trust fund may range from the simplicity of less than half a dozen kinds of transactions of a routine nature to more or less complicated procedures including accounting for large amounts of investments made up of many different items, exact measurement and recording of income and expenses, and determination of liabilities and equities on an actuarial basis. A guaranty deposits fund may be cited as an example of the simple type, and an employees' pension or retirement fund as an example of the complex type. As stated elsewhere, transactions of some expendable trust funds bear a close resemblance to those of agency funds and are accounted for in a similar manner. The discussion in the next several paragraphs, therefore, will relate to transactions of the more complicated trusts.

The more important factors which determine whether accounting for a trust will be simple or relatively intricate are the following:

1. The extent of detailed accounting for income and expenditures. Activities of the fund may be such as to warrant rather extended classification of revenue and cost items, for purposes of economy and control. One possible example is an expendable trust fund for the care and maintenance of a large cemetery. On the other extreme are those trust funds for which even costs of administration are absorbed by another fund.

2. Type of investments, if any, owned by the fund. Investments in real estate may require a variety of expenditures for repair and maintenance. Investments in bonds may give rise to some complication in amortization of premiums and discounts. These observations are particularly appropriate if the fund is nonexpendable as to principal but expendable as to net income, since this necessitates careful measurement of the latter.

3. Restrictions, or absence of restrictions, upon use of fund assets and upon income derived from their use.

Illustrative entries for a trust fund

To demonstrate the basic accounting procedures for a trust fund, it will be assumed that the county of Rumford has an endowment fund to assist in financing the operations of an historical museum, the fund being nonexpendable as to principal but expendable as to net income, which is transferred annually to the museum operating fund. At December 31, 1968, the after-closing trial balance of the fund was as shown in Illustration 8–1.

Illustration 8–1

COUNTY OF RUMFORD

Historical Museum Endowment Fund
Trial Balance, December 31, 1968

	Debit	*Credit*
Cash	$ 4,700	
Certificates of deposit	10,000	
Accrued interest income	280	
U.S. government bonds	76,880	
Undivided interest in Otis Walker estate	1	
Building	400,000	
Allowance for depreciation—buildings		$ 96,000
Land	11,000	
Prepaid insurance	330	
Vouchers payable		3,920
Due to museum operating fund		10,400
Museum endowment fund balance		392,871
	$503,191	$503,191

Transactions in summary form, and the entries therefore, were as follows during 1969:

1. The Otis Walker estate was settled during 1969 and the museum received the following items:

Agricultural land	$15,000	
Cash	16,300	
Common stock (par value, $25,000)	42,400	market value
Corporation bonds (par value, $30,000)	30,900	market value

Agricultural Land	15,000	
Cash	16,300	
Common Stock	42,400	
Corporation Bonds	30,900	
Undivided Interest in Otis Walker Estate		1
Museum Endowment Fund Balance		104,599

2. Building rental of $18,000 for the year was collected in cash:

Cash	18,000	
Rental Income		18,000

3. U.S. government bonds which had a carrying value of $21,890 at the end of 1968 matured at $22,000 during the year:

Cash	22,000	
U.S. Government Bonds		21,890
Interest Income		110

4. A corporate dividend of $750, and interest of $1,280 on corporate bonds and certificates of deposit, were received during the year. This included $280 accrued interest income at the end of 1968.

Cash	2,030	
Accrued Interest Income		280
Dividend Income		750
Interest Income		1,000

5. Costs and other items which were vouchered during 1969 were as follows:

Wages (including all taxes, withholdings, etc.)	$ 3,700
Insurance premiums	210
Transfer of 1968 net savings to recipient fund	10,400
Purchase of U.S. government bonds	32,440
Maintenance and repair of buildings	1,630
General expense	990

Wages	3,700	
Prepaid Insurance	210	
Due to Museum General Fund	10,400	
U.S. Government Bonds	32,440	
Building Maintenance and Repair	1,630	
General Expense	990	
Vouchers Payable		49,370

6. The land received from the estate of Otis Walker was sold for $14,500 cash:

Cash	14,500	
Museum Endowment Fund Balance	500	
Agricultural Land		15,000

7. Payments on vouchers payable during 1969 totaled $51,710.

Vouchers Payable	51,710	
Cash		51,710

8. $15,000 additional cash was converted to certificates of deposit during 1969.

Certificates of Deposit	15,000	
Cash		15,000

9. Adjusting information at December 31, 1969, was as follows:

Depreciation of building	$5,000
Expiration of insurance premiums during 1969	260
Dividend declared but unpaid on corporate stock	750
Accrued interest income, including $980 increase in carrying value of U.S. government bonds	2,060

Depreciation of Building	5,000	
Insurance Expense	260	
Dividends Receivable	750	
U.S. Government Bonds	980	
Accrued Interest Earned	1,080	
Allowance for Depreciation—Building		5,000
Prepaid Insurance		260
Dividend Income		750
Interest Income		2,060

From the trial balance shown in Illustration 8–2, which is in adjusted form, correct financial statements required for control of the fund can be prepared. However, the form and composition of these statements will not be illustrated at this juncture. It will be done at a later time when financial statements for trust and agency funds generally are discussed.

Closing entries

Closing entries of the conventional sort are not needed for agency funds, which do not make use of nominal accounts. For trust funds, on the other hand, closing entries are ordinarily a necessary part of the accounting procedure, although for those of very simple structure and operation their use may be obviated. Closing entries for trust funds have the same

Illustration 8–2

COUNTY OF RUMFORD
Historical Museum Endowment Fund
Adjusted Trial Balance
December 31, 1969

	Debit	*Credit*
Cash	$ 10,820	
Certificates of deposit	25,000	
Accrued interest income	1,080	
Dividends receivable	750	
Prepaid insurance	280	
U.S. government bonds	88,410	
Corporation bonds	30,900	
Common stock	42,400	
Building	400,000	
Allowance for depreciation—building		$101,000
Land	11,000	
Vouchers payable		1,580
Historical museum endowment fund balance		496,970
Rental income		18,000
Interest income		3,170
Dividend income		1,500
Wages	3,700	
Building repair and maintenance	1,630	
Insurance expense	260	
General expense	990	
Depreciation of building	5,000	
	$622,220	$622,220

two purposes which they have in commercial accounting, that is, to put the nominal accounts in balance and to record the net gain or loss in the appropriate account. What constitutes the appropriate account for receiving net gain or loss of a trust fund depends upon the nature and purpose of the fund, as explained below:

1. If the fund is expendable as to both principal and income, net gain or loss for a given period may be transferred to the Fund Balance account, because all fund assets from whatever source will be disbursed.
2. If the fund is nonexpendable as to both principal and income, net gain or loss for a given period should be closed to the Fund Balance account, since assets acquired through earnings must be retained for use.
3. Net gain or loss of a trust fund which is nonexpendable as to principal but expendable as to income may be handled in either of two ways:
   a) Closed to the Fund Balance account with some special title (or possibly a reserve for expendable assets, or some such title), if expenditure of net earnings is administered by the main trust fund.
   b) Closed to a Due to ——— Fund account, if expenditure of net earnings is administered by a separate fund, which is considered the better practice if there is a sizable variety and volume of transactions.

For the county of Rumford historical museum endowment fund, the income and expense accounts will be closed into a summary account, such

as Operating Summary, in the conventional manner for closing such accounts. The summary account will then be closed to Due to Historical Museum Operating Fund, as indicated by Illustration 8–1. An acceptable variation would close income and expense accounts directly into Due to Historical Museum Operating Fund in a single compound entry.

Illustration 8–3

COUNTY OF RUMFORD

Historical Museum Endowment Fund
After-Closing Trial Balance
December 31, 1969

	Debit	*Credit*
Cash	$ 10,820	
Certificates of deposit	25,000	
Accrued interest income	1,080	
Dividends receivable	750	
Prepaid insurance	280	
U.S. government bonds	88,410	
Corporation bonds	30,900	
Common stock	42,400	
Building	400,000	
Allowance for depreciation—building		$101,000
Land	11,000	
Vouchers payable		1,580
Due to historical museum operating fund		11,090
Historical museum endowment fund balance		496,970
	$610,640	$610,640

An after-closing trial balance at December 31, 1969, would appear as shown in Illustration 8–3.

Operating funds for trust income

Elsewhere, it has been stated that use of expendable income of a trust fund may, if transactions are numerous, best be accounted for in a separate operating fund, such as the historical museum operating fund referred to above. Such a fund would normally make use of accounts for cash, receivables, payables, fund balance, and such expense titles as are needed to classify the expenditures of the fund. Furthermore, income earned by the related fund which accounts for investments and other earning power of the trust may be sent directly to the operating fund, instead of being received by the endowment fund, which would make it desirable to employ one or more income accounts in the operating fund. If the operating fund receives *net* income from the trust investments, the credit might be to the fund balance but would better be recorded in a nominal account such as Earnings Transferred from Endowment Fund. Obviously, if income and expense accounts are employed by an operating fund, closing entries would be necessary at the end of each period.

A fund of the kind discussed here may be controlled by a formal budget fully integrated with the proprietary accounts.

Accounting for depreciable assets

Depreciable assets may be owned by trust funds either as investments or for operating purposes. Ownership of depreciable fixed assets for operating purposes is not an extensive practice; it may be found in some cemetery trust funds which provide upkeep, maintenance, and burial services; and possibly in some others. Unless the amount of depreciable equipment used for operating purposes is rather large, its cost may be charged to expense rather than being capitalized and periodically depreciated. This is suggested merely as a convenience, it should be understood, and not because it is sounder in theory.

Ownership of buildings as trust fund investments is not uncommon. If the owning fund is expendable as to both principal and income, there would appear to be no reason for formal recording of depreciation in the accounts, since careful differentiation of costs between principal and income is of little or no consequence. The same may be said with almost equal force if the fund is wholly nonexpendable. There are two possible exceptions to the latter statement:

1. Recording depreciation may be desirable to obtain a more accurate statement of periodic income, as a means of control.
2. The fund trustees may desire to recognize depreciation by establishing a reserve for replacement, which would be nothing more than segregating a portion of the fund balance, through such an entry as the following, assuming annual depreciation to be $800:

Trust Fund Balance	800	
Reserve for Replacement of Building		800

When large amounts of depreciable assets are owned by trust funds which are nonexpendable as to principal but expendable as to income, it would appear that recognizing depreciation is necessary for correct measurement of income and preservation of the fund's balance. However, this is not unqualifiedly true.

1. If the source which establishes the trust (donor, testator, etc.) sees fit to do so, he has the legal right to specify that depreciation shall not be a charge against income.
2. If depreciable assets are included in the original corpus of the trust, according to the so-called "general rule of law" depreciation of such assets is not chargeable to income. This rule applies in the event that the source of the trust made no stipulation in the instrument of conveyance and no law to the contrary has been enacted by the state in which the trust is located.

Even when depreciation of investment assets is agreed upon, opinions may vary as to the better method for recording. Some prefer a credit to Allowance for Depreciation, as in the following conventional-type entry:

Depreciation of Buildings	800	
Allowance for Depreciation of Buildings		800

Others would substitute for the credit member of the above entry the Reserve for Replacement of Buildings account. Practically identical results would be accomplished by whichever credit is chosen. The allowance for depreciation of buildings balance may be deducted from the buildings balance in the manner followed in commercial practice; or, if those in authority insist, it may be shown as an equity reserve on the credit side of the balance sheet. The latter would be equivalent to viewing it as a replacement reserve rather than in its usual light as a valuation account.

TRUST AND AGENCY FUND STATEMENTS

Financial statements needed for control and management of trust and agency funds depend upon the nature of the fund. Balance sheets and statements of cash receipts and disbursements are desirable for all funds. If net gain or net loss is a factor of importance, operating statements must be prepared; but it should be noted that for some funds a statement of cash receipts and disbursements is virtually an operating statement. All trust funds should have statements of changes in fund balance; in some instances, this is the most important of all. Examples will be given of four different kinds of statements for an individual fund (Illustrations 8–4 to 8–7, inclusive).

It will be noted that the grouping of assets into current, fixed, and deferred, as found in balance sheets of commercial-type enterprises, is absent from the trust fund balance sheet shown in Illustration 8–4. This is true because—although some of the assets are temporarily in a nonprofit form—all are directly or indirectly related to the earning of income through investment; and no questions of customary financial ratios on liquidity, relationship of fixed assets to capital, income to fixed assets, etc., are involved.

Although the statement in Illustration 8–5 shows only two causes of change in the fund balance, there are other causes, of which the following three may be mentioned:

1. Distributions of assets chargeable to the principal, for funds fully expendable.
2. Operating gain (or loss) if income is fully nonexpendable.
3. Transfer (by gift, etc.) of assets to another fund, or discontinuance of this fund.

Illustration 8-4

COUNTY OF RUMFORD

Historical Museum Endowment Fund
Balance Sheet
December 31, 1969

Assets			
Cash			$ 10,820
Accrued interest income			1,080
Dividends receivable			750
Investments:			
Certificates of deposit		$ 25,000	
U.S. government bonds		88,410	
Corporation bonds		30,900	
Common stock		42,400	
Building	$400,000		
Less: Allowance for depreciation	101,000	299,000	
Land		11,000	
Total investments			496,710
Prepaid insurance			280
Total Assets			$509,640
Liabilities and Fund Balance			
Liabilities:			
Vouchers payable			$ 1,580
Due to historical museum operating fund			11,090
Total Liabilities			$ 12,670
Fund balance:			
Historical endowment fund balance			496,970
Total Liabilities and Fund Balance			$509,640

Illustration 8-5

COUNTY OF RUMFORD

Historical Museum Endowment Fund
Statement of Changes in Fund Balance, 1969

Fund Balance, December 31, 1968	$392,871
Add: Increase from settlement of Otis Walker estate	104,599
Total beginning balance and addition	$497,470
Deduct: Loss on sale of land from Otis Walker estate	500
Fund Balance, December 31, 1969	$496,970

If the causes of change in fund balances are not numerous, they may be incorporated in the fund balance section of the balance sheet, thus obviating the need for a special statement.

Statements of cash receipts and disbursements (see Illustration 8-6) for trust and agency funds serve the usual purpose of such statements, namely, to explain the change in cash during the period covered by the report. In a way, the statement may function also as a sort of revenue and expense exhibit; but it is not often a fully acceptable substitute for the formal statement of operations. Combination is not desirable if the accrual

Illustration 8–6

COUNTY OF RUMFORD

Historical Museum Endowment Fund
Statement of Cash Receipts and Disbursements for 1969

Cash balance, December 31, 1968		$ 4,700
Receipts:		
Estate of Otis Walker	$16,300	
Maturity of U.S. government bonds	21,890	
Sale of agricultural land	14,500	
Rental income	18,000	
Interest income	1,390	
Dividend income	750	
Total receipts		72,830
Total beginning balance and receipts		$77,530
Disbursements:		
Conversion to certificates of deposit	$15,000	
Payment of wages	3,700	
Payment of insurance premiums	210	
Payment of general expense	990	
Payment of building repair and maintenance cost	3,970*	
Purchase of U.S. government bonds	32,440	
Transfer to historical museum operating fund	10,400	
Total disbursements		66,710
Cash Balance, December 31, 1969		$10,820

* Assumes all beginning and ending vouchers payable were for this expense. Payment of beginning balance of vouchers payable, plus charges to building repair and maintenance during the year, minus unpaid balance of vouchers payable, end of year: ($3,920 + $1,630) − $1,580 = $3,970.

basis of accounting is used; nor is it desirable if the fund regularly has nonrevenue receipts and disbursements of cash, such as additional contributions, maturity or sale of investments, purchase of investments, etc.

In preparing the list of disbursements in Illustration 8–6, it was necessary to make an arbitrary apportionment, since all expenditure transactions were supposed to be vouchered and there was no indication of the costs represented by unpaid vouchers at the beginning and end of the year. In practice, the apportionment could be made from an analysis of actual vouchers paid during the year. For simplicity, in the illustration both were assumed to represent unpaid building repair and maintenance cost.

Illustration 8–7 is a pure statement of income and expenses. Comparing it with the statement of cash receipts and disbursements (Illustration 8–6) reveals the inadequacy of the latter statement in this case for reporting what is reported in the income and expense statement.

Combined trust fund financial statements

In Chapter 16 will be found an exposition of combined (not consolidated) balance sheets for all funds. The techniques of combined statements are applicable to trust and agency funds, because of the number of separate funds which may be utilized to account for the different trust

Illustration 8-7

COUNTY OF RUMFORD

Historical Museum Endowment Fund
Statement of Income and Expenses for 1969

Income:		
Rentals		$18,000
Interest		3,170
Dividends		1,500
Total income		$22,670
Expenses:		
Wages	$3,700	
Building repair and maintenance	1,630	
General expense	990	
Insurance expense	260	
Depreciation of building	5,000	
Total expenses		$11,580
Excess of Income over Expenses (due to museum operating fund)		$11,090

and agency relationships of a governmental unit. Combining of statements for funds of this classification may be extended to statements of cash receipts and disbursements, statements of changes in fund balances, and any others which may be prepared for all units of the group.

Accounting for investments

In governmental finance, investments consist of real estate, bonds and other forms of indebtedness, stock, patents, royalties, and possibly other assets. Governmental resources may be converted to these forms of investments for one or the other of the two following reasons:

1. To make profitable use of current revenue cash which would otherwise be idle until needed for financing regular activities of the fund. These are called short-term or temporary investments. Since they must be marketed at a rather definite time, in order to make cash promptly available when needed, they should be well seasoned and subject to practically no market fluctuation. Otherwise, their quick sale may result in a loss. Any kind of fund having temporary excess cash may wisely acquire short-term investments.
2. To produce income on a permanent basis. These are characterized as long-term or permanent investments. They should combine the factors of safety and maximum income. Proclivity to market fluctuations is not particularly objectionable in this class of investments. This is true because any items chosen for sale may be disposed of in a more deliberate manner than if the proceeds are required for current expenditure, and a sizable portion of bond investments may even be held to maturity.

Since short-term investments represent employment of cash not immediately needed for normal purposes, they may conceivably be acquired by any fund of the eight standard types. Long-term investments, on the

contrary, are peculiar to trust funds, debt service funds, and enterprise funds, with the greatest amount held by those of the first-named type.

From an accounting standpoint the more difficult problems associated with fund investments are as follows:

1. Measuring and recording periodic income from investments.
2. Measuring and recording gain or loss on sale, or disposal in any other manner, of an investment.

In the next several paragraphs, these problems will be explored, first as they relate to permanent investments and afterwards as they affect temporary investments.

Permanent investments

Permanent investments should be recorded at cost. This figure should include every outlay required to obtain clear title to the asset. Some of the more common elements of the cost of acquiring investments are purchase price, legal fees attendant upon the acquisition, and taxes and commissions to which the transaction is subject. The difference between par value of an investment and the cost of the investment determines the amount of premium or discount. Acquisition of property by donation is not uncommon for some kinds of trust funds. There being no purchase price to use as a base, at what figure should the gift be recorded? The preferred practice is to record the property at its value based upon competent appraisal or, in the absence of an appraisal, at $1.00. Since the major problems of accounting for investments arise in connection with securities —that is, stocks, bonds, mortgages, etc.—subsequent discussion will be confined to them.

To illustrate some of the procedures recommended for recording acquisition of securities, a few suggested entries are given below:

1. An endowment fund receives as a gift 500 shares of no-par-value stock of the Rex Manufacturing Company, currently quoted at $61.20 per share. The entry in the endowment fund would be as follows:

Investments	30,600	
Endowment Fund Balance		30,600

2. Noninterest-bearing United States treasury bills with a maturity value of $20,000 are bought as a short-term investment at a discount of 2⅜ percent.

Investments	19,525	
Cash		19,525

$\$20{,}000 \times (100\% - 2\tfrac{3}{8}\%) = \$20{,}000 \times 97\tfrac{5}{8}\%$

3. Twenty-five bonds, par value $1,000 each, of the Pacific Railroad, were purchased at 96¼, with exchange fees and broker's commissions amounting to $105. The endowment fund entry would be as follows:

Investments	24,167.50	
Cash		24,167.50

The cost of the 25 bonds was calculated by multiplying $25,000 by 96¼ per cent, which gave a product of $24,062.50, and then adding the $105 cost of acquisition. *If, instead of being acquired at a net discount* (amount below par value) of $832.50, the bonds had cost a total premium (amount above par value) of that figure, the Investments account would have been debited for $25,832.50.[1]

Except for perpetual bonds, which for practical purposes are nonexistent in the United States, all bonds, mortgages, notes, etc., (but not stock) have a maturity date, at which time holders of the bonds will receive the par value of their holdings. That is to say, as bonds approach the maturity date, whatever their values may have been or may now be, they approach par value. Thus, if the trust fund acquiring $25,000 par value of bonds for $24,167.50 holds them until maturity, it will gain $832.50. What is the proper distribution of this gain? Should it be recorded in the period in which the bonds were purchased or in the period in which they mature?

Had the discount been of small amount, either of the two periods, preferably the latter, could receive the credit without material distortion of results. However, if the amount is sizable, the preferred practice is to distribute it over the time the bonds are held. This method is preferred because it gives some part of the credit to each period and avoids distortion of income in any one period. The process of distributing total discount or premium over a number of periods is referred to as "amortization," although, as applied to discount, it is sometimes erroneously described as "accumulation," because reducing the discount builds up or accumulates the book value of the bond. If the bonds were acquired at a discount, the periodic amortization of discount is regarded as an addition to income for the period. It is not received in cash during the period but is represented by an increase in book value of the investment, subsequently to be realized in cash. Periodic amortization of premium is construed as a reduction of income, since it represents a decline in the investment's book value as compared with its purchase price. "Book" or "Carrying" value is cost plus discount amortized to date, or minus premium amortized to date.

The two most common methods of amortizing premium and discount are the straight-line and the scientific methods. The former consists of allocating to each period during which the investment is owned an equal amount of premium or discount. Thus, if the Pacific Railroad bonds were purchased at a discount of $832.50, 10 periods before their maturity date, the straight-line method would credit $83.25 of the discount amortization

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[1] An alternative method for recording cost of bonds is to record par value in one account, with premium and discount in separate accounts.

to each of the 10 periods. Use of the scientific method, on the other hand, results in amortization at a regularly increasing amount, the first period receiving the smallest amount of credit, with the largest amount in the last period. Likewise, use of the straight-line method for amortizing premium gives equal distribution of amounts. However, amortizing premium by the scientific method results in gradation of amounts, the first period being charged with the least, the last one with the most. The reason for the contrast in results from using the scientific method for discount and premium will be explained later.

Before embarking upon a detailed exposition of premium or discount amortization, a consideration of some general rules appears to be in order:

1. If investments having a designated maturity date are acquired as part of the original corpus of the trust, the general rule of law would not allow premium or discount amortization as adjustments of income. Gain or loss on disposal of such investments, by the same rule, is an adjustment of principal.
2. Circumstances may exist which minimize the importance of exact measurement of income in an accounting sense. Relatively small amounts of premium or discount on investments and absence of conflicting interests among beneficiaries are illustrations of such circumstances.
3. Because of probable changes in amounts of investments owned by long-term or large trusts, a *rate* of return is a more reliable and convenient criterion for judging efficiency of their management than is an *amount* of return. Use of the scientific method of amortization (as compared with straight-line) tends to produce a more uniform rate from period to period. This facilitates and fortifies comparisons.

Discussion of amortization in the next few pages will be predicated upon the assumption that it is a function of income determination. No elaboration of the opposite situation is necessary. Under the latter concept, premium and discount transactions are regarded as adjustments of principal and affect the accounts only at the time of acquisition and disposal of the related investments.

Explanation of straight-line amortization

Amortization of discount on bond investments over the life of the bonds has a twofold effect, as follows:

1. It adds periodically to the value of the investment as shown by the books, that is, "book value" or "carrying value." Current market value at any given time may be materially different from the book value. Ordinarily, this is of no importance to the trust fund which owns the bond, since the investment is a long-term commitment of earning power.
2. The increase in book value allotted to each period is an addition to the income on the investment for that period. Thus, if the nominal rate of interest on Pacific Railroad bonds is 4 percent per annum, payable semiannually, the nominal interest per period is 2 percent times $25,000, or $500. The nominal rate of interest is the rate named in the bond, which the issuing

corporation covenants to pay on the par value of each bond. The effective interest on bonds acquired at a discount is the sum of the nominal interest plus the increase in the carrying value of the investment.

If bonds are acquired at a premium, their carrying value declines period by period. The effective interest on such bonds, therefore, is the remainder of nominal interest minus premium amortization.

From the foregoing statements, it is evident that the real earning on bonds bought at a discount or a premium is effective interest. Calculation of periodic effective income on a straight-line basis on \$25,000 of par value bonds, nominal rate of interest 4 percent per annum, payable semiannually, may be illustrated as follows:

1. If purchased at a discount of \$832.50, five years before maturity:

$$(\$25{,}000 \times 2\%) + \frac{\$832.50}{10} = \$583.25 \text{ periodical effective interest.}$$

2. If purchased at a premium of \$832.50, five years before maturity:

$$(\$25{,}000 \times 2\%) - \frac{\$832.50}{10} = \$416.75 \text{ periodical effective interest.}$$

The process of discount amortization by the straight-line method may be represented by the schedule of amortization shown in Illustration 8–8.

Illustration 8–8

SCHEDULE OF DISCOUNT AMORTIZATION

Period	*Nominal Interest (2 Percent)*	*Effective Interest*	*Discount Amortization*	*Carrying Value of Investment at End of Period*
0	...	.....	....	\$24,167.50
1	\$500	\$583.25	\$83.25	24,250.75
2	500	583.25	83.25	24,334.00
3	500	583.25	83.25	24,417.25
4	500	583.25	83.25	24,500.50
5	500	583.25	83.25	24,583.75
6	500	583.25	83.25	24,667.00
7	500	583.25	83.25	24,750.25
8	500	583.25	83.25	24,833.50
9	500	583.25	83.25	24,916.75
10	500	583.25	83.25	25,000.00

A schedule of premium amortization can be constructed on the pattern of the discount amortization table in Illustration 8–8. For the Discount Amortization column would be substituted one for Premium Amortization. Amounts in that column would be subtracted from, rather than added to, carrying value. Finally, carrying value at the end of Period 0 (same as beginning of Period 1) would be the sum of par value and premium.

Amortization schedules are not entirely necessary if the straight-line basis is used. Periodic amortization is easily determined by simple arithmetic, and effective interest is almost equally simple. The amounts and entries for nominal and effective interest are the same for each period.

Examination of the straight-line amortization table shown in Illustration 8–8 will reveal that, although the investment carrying value increased periodically, the *amount* of effective interest for each of the 10 periods remained stationary. This means that the effective *rate* of interest, obtained as the quotient of effective interest divided by carrying value of investment, declines each period, if discount is amortized equally by periods. Conversely, use of the straight-line method for amortizing premium would result in a periodically increasing effective rate of interest. Because of the importance of a regular rate of return in the management of investments, the straight-line basis for amortizing premium and discount is sometimes considered unacceptable. However, a very strong point in its favor is simplicity of operation.

Explanation of scientific amortization

The scientific method of amortization utilizes actuarial tables to develop a schedule in which effective interest and the amount of amortization are adjusted periodically to produce a fixed *rate* of effective interest. That is, the effective interest for each period, divided by the carrying value of the investment for that period, gives the same quotient, which is the rate of interest. How the scientific method operates will be demonstrated first as to bonds for which a premium was paid and then as to bonds acquired at a discount.

Referring to the Pacific Railroad 4 percent bonds used as an example for straight-line amortization, let it be supposed that the safety factor of these bonds is such that they can command an effective rate of somewhat less than 2 percent semiannually. Further, let it be assumed that the governing body of a trust fund decides that a semi-annual yield of 1½ percent on these bonds is acceptable and accordingly decides to bid on $25,000 par value of them. What would be the bid price? It will depend upon the time the bonds have yet to run, which for present purposes will be assumed as three years.

What will the trust fund obtain if it becomes the successful bidder?

1. The right to receive $25,000 at the end of six periods.
2. The right to receive an interest payment of $500 at the end of each of the next six periods.

The series of interest payments is referred to as an "annuity," an annuity being defined as a series of equal payments, spaced at equal intervals of time. If each payment is made at the end of its respective period, the series is designated as an "ordinary annuity"; whereas if payments are made at the beginning of each period, the series becomes an "annuity due." Unless otherwise specified, "annuity" normally refers to the former.

Exact determination of the price that can be paid under the circumstances described, in order to obtain an effective or yield rate of 1½ percent, consists of the following steps:

1. Determining the actuarial worth today, at 1½ percent discount, of $25,000 for which the recipient will have to wait six periods.
2. Determining the actuarial worth today of an annuity of $500 at 1½ percent for six periods.

Both item 1 and item 2 require the use of mathematical tables giving various values of 1, or $1.00.

Reference to a table of present worths of 1 (Appendix 3, Table A) shows that the present worth of 1 for six periods at 1½ percent is 0.91454219. This means that if an investor considers his money to be worth a return of 1½ percent per period, he could afford to give slightly more than $0.91 for the right to receive $1.00 at the end of six periods. Multiplying 0.91454219 by $25,000 gives $22,863.55475 as the present worth of $25,000 discounted for six periods at 1½ percent.

A table of the present worths of an annuity of 1 (Appendix 3) shows the present worth of an annuity of 1 at 1½ percent for six periods to be 5.6971872, which would produce a value of $2,848.5936 for an annuity of $500 under the same terms. Thus, it appears that for a return of 1½ percent semiannually on its investment, the trust fund management could bid the sum of $22,863.55475 and $2,848.5936, or $25,712.15, for the $25,000 of Pacific Railroad bonds.

A schedule of effective interest and also of premium amortization on a scientific basis for the above investment would appear as shown in Illustration 8–9.

Illustration 8–9

SCHEDULE OF PREMIUM AMORTIZATION

$25,000 Par Value 4 Percent Bonds, Interest Payable Semiannually
Acquired 3 Years before Maturity, to Yield 1½ Percent Semiannually

Period	*Nominal Interest (2 Percent)*	*Effective Interest (1½ Percent)*	*Premium Amortization*	*Carrying Value at End of Period*
0	...	.....	.....	$25,712.15
1	$500	$385.68	$114.32	25,597.83
2	500	383.97	116.03	25,481.80
3	500	382.23	117.77	25,364.03
4	500	380.46	119.54	25,244.49
5	500	378.67	121.33	25,123.16
6	500	376.84*	123.16	25,000.00

* This figure was "forced" from $376.85, the correct effective interest on $25,123.16 at 1½ percent, in order to give the required difference for premium amortization. The need for "forcing" was brought about by dropping decimals.

To demonstrate the structure of a schedule for amortizing discount by the scientific method, a table for that purpose is shown in Illustration

8–10. Without detailing the actuarial calculations involved, it will be assumed that a trust fund acquired the Pacific Railroad 4 percent bonds on a 5 percent basis, that is, at a price to yield 2½ percent semiannually. In order to obtain a semiannual yield rate of 2½ percent on bonds paying a nominal rate of 2 percent on par value, the investment had to be bought at

Illustration 8–10

SCHEDULE OF DISCOUNT AMORTIZATION*
$25,000 Par Value 4 Percent Bonds, Interest Payable Semiannually
Acquired 3 Years before Maturity, to Yield 2½ Percent Semiannually

Period	*Nominal Interest (2 Percent)*	*Effective Interest (2½ Percent)*	*Discount Amortization*	*Carrying Value at End of Period*
0	...	.....	.....	$24,311.48
1	$500	$607.79	$107.79	24,419.27
2	500	610.48	110.48	24,529.75
3	500	613.24	113.24	24,642.99
4	500	616.07	116.07	24,759.06
5	500	618.98	118.98	24,878.04
6	500	621.96†	121.96	25,000.00

* This might be called a "schedule of carrying value accumulation."
† This figure was "forced" from $621.95, the correct effective interest on $24,878.04 at 2½ percent in order to give the required difference for discount amortization. The need for "forcing" was brought about by dropping decimals.

less than par. To obtain a yield rate of 2½ percent for six periods on $25,000 par value of bonds would necessitate their purchase for $24,311.48. The purchase price equals the present worth of $25,000 for six periods at 2½ percent, plus the present worth of an annuity of $500 under the same terms.

An alternative method for determining what purchase price will yield a given rate is as follows:

1. Determine the periodic interest at the nominal rate on the par value of the proposed purchase.
2. Determine the periodic interest at the desired effective or yield rate on the par value of the proposed purchase.
3. Find the difference between item 1 and item 2.
4. Find the present worth of an annuity of the amount of item 3 from time of purchase to maturity of the bonds, at the desired effective rate.
5. If the effective rate is higher, subtract the result in item 4 from the par value; if the nominal rate is higher, add the result of item 4 to the par value. The difference or sum will represent the cost which will yield the desired return.

Purchase between interest periods

In buying bonds, it is not usually practicable to make the purchase on the first day of an interest period. The question arises as to the determination of carrying value when bonds are bought, say, two months after an

interest date, with interest payable semiannually. To explain the method of ascertaining valuation between interest dates, it will be assumed that the purchase occurred in the sixth semiannual period before maturity. Valuation will be calculated for the beginning of the sixth and fifth interest periods. Valuation at the interim date will be ascertained by the process of interpolation, which in this instance would consist of taking one third of the change for the sixth period before maturity and applying that to the valuation at the beginning of the sixth period. Thus, if the valuation at the beginning of the sixth period before maturity was \$25,712.15 and premium amortization for that period was \$114.32, interpolated valuation two months through the period would be \$25,712.15 minus $\frac{\$114.32}{3}$, or \$25,674.04. It will be observed that the above interpolation was calculated on the basis of arithmetical progression. This is consistent if the straight-line basis of amortization is employed, but does not conform strictly with the scientific basis, in which the amortization periodically increases.

Accounting for income on bonds—straight-line amortization

As stated previously, when discount on bond investments is amortized, periodic earnings on the investments consist of the nominal interest, received in cash, and the increase in value of the investment during the period. Referring to the schedule of straight-line amortization of discount (Illustration 8–8), it is seen that total earnings for the first period were \$583.25, consisting of \$500 cash plus an \$83.25 increase in the carrying value of the investment. In general journal entry form, the first-period earnings would be recorded as follows:

Cash	500.00	
Investments	83.25	
Income on Bonds		583.25

By the nature of the straight-line method, the entry for each period's earnings would be the same.

Had the bonds been bought at a premium of \$832.50, each period would have brought a reduction of \$83.25 in the carrying value of the investment. The complete entry if premium amortization were involved would be as follows:

Cash	500	
Investments		83.25
Income on Bonds		416.75

This entry is based on the logic that in each \$500 interest payment the trust fund is recovering \$83.25 of the amount paid out as premium,

leaving a net earning of $416.75. It will be observed that amortization of either premium or discount will bring the investment carrying value to par value at the end of the last interest period.

Accounting for income on bonds—scientific method

Unlike entries for income on bonds by the straight-line method, those based on the scientific method will not be the same in each period. If the bonds were acquired at a premium, for each period the premium amortization will be more and the amount of effective interest less than for the preceding period. If the bonds were acquired at a discount, both discount amortization and amount of effective interest will increase periodically.

The tabular summary of journal entries shown below portrays the change of amounts if the scientific method is used:

PERIODIC ENTRIES—BONDS ACQUIRED AT A PREMIUM

Accounts	*First Period*	*Second Period*	*Third Period*	*Fourth Period*
Cash, Dr.	$500.00	$500.00	$500.00	$500.00
Investments, Cr.	114.32	116.03	117.77	119.54
Income on Bonds, Cr.	385.68	383.97	382.23	380.46

PERIODIC ENTRIES—BONDS ACQUIRED AT A DISCOUNT

Accounts	*First Period*	*Second Period*	*Third Period*	*Fourth Period*
Cash, Dr.	$500.00	$500.00	$500.00	$500.00
Investments, Dr.	107.79	110.48	113.24	116.07
Income on Bonds, Cr.	607.79	610.48	613.24	616.07

Recording discount and premium separately from par value

Thus far, discount and premium on bonds have been recorded in the same account with the par value of the bonds. That is, the purchase of $25,000 par value of bonds at a premium of $712.15 was recorded as a single debit, to Investments, of $25,712.15. The purchase of the securities at a discount of $688.52 was entered as a debit of $24,311.48. This practice is acceptable if the portfolio of investments includes only a few on which discount or premium must be amortized. However, as soon as bond investments reach any considerable proportions—say, at least 10 or 15—it becomes advantageous to record only par value in the Investments account, with supplementary accounts for premium and discount. To do so adds extra accounts to the ledger, but this is justified because it contributes to accuracy and to ease of discount and premium amortization. Operation of supplementary accounts for premium and discount may be illustrated by the following entries for the purchase of $25,000 par value of bonds, first at $25,712.15 and then at $24,311.48:

Investments	25,000.00	
Premium on Investments	712.15	
Cash		25,712.15

Investments	25,000.00	
Discount on Investments		688.52
Cash		24,311.48

It will be noted that the carrying value is determined by adding unamortized premium to par value or subtracting unamortized discount from par value.

Separation of unamortized premium or discount from par value alters the form of entries for amortization. Instead of direct credits and debits to the Investments account, changes will be made in the supplementary accounts, as illustrated below, with amounts based on tables heretofore used.

1. For collection of interest on bonds bought at a premium, the following entry will be made:

Cash	500.00	
Premium on Investments		114.32
Income on Bonds		385.68

2. For collection of interest on bonds bought at a discount, the entry will be as follows:

Cash	500.00	
Discount on Investments	107.79	
Income on Bonds		607.79

In so far as amortization is concerned, the two entries above have the same effect on the carrying value as if Investments had been credited for $114.32 in the first entry and debited for $107.79 in the second. As Premium on Investments is reduced by credits, it draws the carrying value nearer to par; as Discount on Investments is reduced by debits, it draws the carrying value nearer to par.

All the preceding discussion of amortization has related to bonds owned as long-term investments. What about amortization of discount or premium on stock investments, or on bonds held as short-term commitments? Discount or premium on stock cannot be systematically amortized by any method because stock has no maturity date and there is no time basis for distributing the premium or discount, nor does stock necessarily tend to approach par value with the passing of time. Concerning short-term bond investments, since their holding is only temporary, their market value may trend even further away from par value during the period of ownership; so reducing book value by writing off discount or premium might be contradictory to facts.

Adjusting entries for income on investments

Correct financial statements for funds owning long-term investments require adjusting entries for income earned but not received. If the holding of investments is small, or if the amount of accrued income at ends of periods is not material in amount, adjusting entries are frequently dispensed with for reasons of economy of time and effort.

Income earned but not received, in the form of real estate rentals, may be recorded in the following routine form for such an adjustment, using an assumed amount:

Accrued Rental Income	320	
Rental Income		320

Dividends on stock investments are not earnings until the corporate board of directors has formally declared a dividend. This applies even though dividends on a certain stock have not been passed or omitted for many years. A trust fund closing its books on June 30 would violate accepted accounting practice to accrue one half of one year's dividends on stock of a corporation whose fiscal year coincides with the calendar year. However, if a dividend had been declared on June 20, payable to owners of record on July 10, the following entry, in an assumed amount, would be valid at June 30:

Dividends Receivable—Y Corporation Preferred Stock	400	
Dividend Income		400

Accrual of income on investments in bonds, mortgages, and notes is sound because interest on such indebtedness of a corporation is a fixed charge, not contingent upon approval by a board of directors. Calculating the amount of accrual on instruments of indebtedness such as those mentioned above is simple if they were acquired at par value. If acquired at a premium or discount that is being amortized, prorating of both nominal interest and amortization is necessary in the adjustment.

As an example of an adjusting entry for accrual of income on bonds purchased at a premium, figures will be taken from the table of premium amortization by the scientific method (Illustration 8–9). Let it be assumed that the interest dates on Pacific Railroad bonds were May 1 and November 1,[2] and that Period 3 in the table began on May 1. If the fiscal period of the trust fund owning these bonds ended on June 30, the accrual of effective interest at June 30 would be $127.41, and amortization for the two months since May 1 would be $39.26. The adjusting entry for June 30 would be as follows:

[2] Interest dates are sometimes indicated by the initial letters of the names of the months and the day date—for example, M and N 1.

Accrued Interest on Bond Investments	166.67	
Investments (or Premium on Investments)		39.26
Income on Bonds		127.41

An adjusting entry for accrued interest on bonds held at a discount may be framed on the basis of the above example.

The mission of some trust funds is to supply cash for more or less immediate purposes, such as tuition and other kinds of support or maintenance grants. Their primary interest is in periodical *spendable* income, which would exclude income accrued but not received and income based on amortization of discount. Amortization of discount adds to earnings only by adding to the carrying value of an investment (debit Unamortized Discount, credit Earnings). It is based upon an expected *future* receipt of cash, at maturity of the investment.

Then why *do* funds record amortization of premium which *reduces* the showing of cash income of the present period (debit Earnings, credit Unamortized Premium)? The reason is that premium on investments represents part of the investment cost. That part of a periodic interest receipt which is attributed to premium amortization (debit Cash, credit Unamortized Premium, and credit Earnings) is actually a recovery of part of the *earning power* cost and not a part of earnings.

Eliminating accruals of income and amortization of discount on investments is important where emphasis is on periodic cash income. Where emphasis is upon exact measurement of income over a long span of years the accrual basis yields more precise measurement of results.

Purchase of accrued interest on investments

The purchase of bonds or other interest-bearing securities between interest dates will include the purchase of accrued interest. That is, the purchaser of an interest-bearing security between interest dates obtains certain earning power, plus an amount of income already earned. A purchase, midway between interest dates, of $25,000 par value of Pacific Railroad 4's, interest payable semiannually, acquires $250 accrued interest, plus the bonds. If the total purchase price was $25,904.99, the investment, or earning power, cost $25,654.99; the outlay for accrued interest will be recovered at the next interest date. Entries for the purchase and for the collection of interest at the next interest date would be as follows:

Investments	25,000.00	
Premium on Investments	654.99	
Income on Bonds	250.00	
Cash		25,904.99
Cash	500.00	
Premium on Investments		57.16
Income on Bonds		442.84

Amounts in the above explanation and entries are based on purchase of the bonds midway in Period 1 as represented in the schedule of scientific amortization of premium (Illustration 8–9). Net income on bonds during the period of purchase was $442.84 less the $250 income purchased. This leaves a remainder of $192.84, which is one half the Period 1 effective interest as shown in the amortization schedule. When the accrued interest was purchased, a more accurate representation would have been a debit to Accrued Bond Interest or Accrued Interest Purchased. Had either account title been used, when collection occurred, a split would have been necessary to credit the special title debited for the $250. Debiting the income account when interest is purchased is technically inaccurate; but when total income for the period is recorded, the adjustment for income

INCOME ON BONDS

Accrued interest purchased........$250.00	*Credit at next interest date........$442.84*

purchased is automatic. The balance of the above account is $192.84, net income for the time the bonds were owned.

For reasons stated elsewhere, dividends on stock are not commonly accrued. However, owners of cumulative preferred stock sometimes calculate an accrual of dividend and add it to the price that buyers must pay to get the stock. In preparing statements of cash receipts and disbursements for trust and other funds which purchase accrued income, the outlay should be entitled Purchase of Accrued Interest on Investments or some similar name, regardless of the account debited for the acquisition.

Gain or loss on disposal of investments

Investments may be disposed of by sale, through payment by the debtor at maturity of the debt, through liquidation of the debtor, and in a few other ways. Unless the transaction is consummated at exactly the book value of the investment at the time of disposal, there will be an accountable gain or loss. If a fund is nonexpendable as to both principal and income, obviously gain or loss, from whatever cause, is an adjustment of the fund balance. If the fund is expendable as to income but nonexpendable as to principal, accounting for gain or loss on disposal of investments will depend upon whether such transactions are governed by specific instructions established by the trustor, or by the so-called "general rule of law." The individual or other authority establishing a trust has a legal right to specify whether such gains and losses are to be related to income or to principal. In the absence of such specific instructions, the general rule of law would operate and relate them to principal.

Every trust fund indenture should contain express provisions govern-

ing accounting for gains and losses on investments, as well as other kinds of debatable transactions. If such is not the case, fund trustees should make the necessary decisions, with due regard for all pertinent law, and incorporate them in their minutes.

Measurement of gain or loss on disposal of investments consists of finding the difference between (1) the net amount realized from the investment and (2) the book value of the investment at the date of disposal. If gross receipts from the sale of investments perchance include a charge for earnings accumulated since the interest or dividend date, the latter being very unusual, the amount thereof must be excluded from the selling price of the investment. Furthermore, brokerage or other fees incurred in consummating the sale must be deducted in finding the net selling price. In the discussion and examples to follow in this section, the decision as to whether gain or loss in each situation is chargeable to income or principal will be evaded by debiting Loss on Sale of Investments for all losses and crediting Gain on Sale of Investments for all gains. This will be done to conserve time and space. To illustrate accounting techniques for disposal of investments, it will be assumed, first, that the book value at the time of disposal is the same as the original cost and, then, that the original cost and the present book or carrying value are different.

The book value of investments at the time of disposal will be the same as the original cost under the following general conditions:

1. If the investment is corporate stock, because premium and discount on stock investments are not amortized.[3]
2. If the investments are bonds acquired at par value.
3. If the investments are bonds acquired at a premium or discount, and none has been amortized.
4. If the investment consists of assets subject to depreciation or amortization, but none has been recorded in any way.

Illustrative entries for the disposal of the above-named types of investments are as follows:

1. \$5,000 par value of stock acquired for \$5,125 was sold for \$5,187.

Cash	5,187	
Investments		5,125
Gain on Sale of Investments		62

2. \$2,000 par value of bonds purchased at par were sold for \$1,793 and accrued interest of \$25.

Cash	1,818	
Loss on Sale of Investments	207	
Investments		2,000
Bond Interest Income		25

[3] If there has been a stock dividend or stock split on stock since it was acquired the cost and book value *per share* will be lower.

3. \$3,000 par value of bonds acquired at a premium of \$25, of which none had been amortized, were sold for \$3,060 and accrued interest of \$40.

Cash	3,100	
Investments		3,025
Gain on Sale of Investments		35
Bond Interest Income		40

4. A building acquired for \$27,000 and land that cost \$1,000 were sold for \$39,000. No depreciation had been recorded on the building.

Cash	39,000	
Buildings		27,000
Land		1,000
Gain on Sale of Investments		11,000

For at least two kinds of investments, the carrying value at the time of disposition will differ from the original cost. These are (1) depreciable fixed assets, ordinarily buildings, on which depreciation has been recorded, and (2) bonds bought for long-term investments, at either a premium or a discount, on which periodic amortization has been recorded. As to the bonds, if all the premium or discount has been written off, they will have been adjusted to par value. Accounting for proceeds at their maturity will be conducted as though they had been acquired at that figure. Disposal of a building for which an allowance for depreciation is carried, and disposal of bonds with a supplementary account for either premium or discount, will be alike in that book value of the investment is recorded in, and will have to be removed from, two accounts.

An additional complication arises when the disposal is made *during* a fiscal period, which is normal, since such transactions are not ordinarily timed to coincide with the beginning or ending of a fiscal period. This means that an adjustment must be made for depreciation or amortization since the last closing, in order to bring the book value up to date. The disposal of a building under such circumstances illustrates the principles involved. Let it be assumed that a building acquired as an investment at a cost of \$18,000 had been depreciated in the amount of \$8,100 to the end of the preceding fiscal period, at an annual rate of \$900. If disposal is made for \$10,000 net, three months after the last closing, the following entries should be made:

Depreciation—Buildings	225	
Allowance for Depreciation of Buildings		225

Cash	10,000	
Allowance for Depreciation of Buildings	8,325	
Investments		18,000
Gain on Sale of Investments		325

Correct accounting for disposal of bonds, the premium or discount on which is being amortized periodically, at a time between interest dates, requires that the carrying value be adjusted to the date of sale. To illustrate the accounting entries involved, let the following assumptions be made about $25,000 par value of bonds:

Period Ending	*Nominal Interest (2 Percent)*	*Effective Interest (1½ Percent)*	*Amortization for Period*	*Carrying Value at End of Period*
December 31, 1968...	$500	$382.23	$117.77	$25,364.03
June 30, 1969........	500	380.46	119.54	25,244.49

Sale or other disposal of the bonds—say, on March 1, 1969—would require that carrying value be brought one third of the way through the period ended on June 30, 1969. Premium amortization for the two months since December 31, 1968, is one third of $119.54, or $39.85, which would indicate a carrying value of $25,364.03 minus $39.85, or $25,324.18, for the investment at the interim date. The decrease in the carrying value may be recorded as follows:

Income on Bonds..	39.85	
Premium on Investments..................................		39.85

Assuming that the bonds were sold to net 100½ plus accrued interest, the transaction might be recorded by this entry:

Cash..	25,291.67	
Loss on Sale of Investments..........................	199.18	
Investments..................................		25,000.00
Premium on Investments..........................		324.18
Income on Bonds..............................		166.67

The amount of loss appearing in this entry is the difference between the carrying value of the investment at March 1, 1969, which is $25,324.18, and the net selling price of the bonds ($25,000 times 100½, or $25,125). The two entries shown above might be condensed into one, but such a lengthy explanation of the amounts would be required that two entries seem to be preferable to one.

For the purpose of saving time, as indicated in the beginning of this section, all gains on investments have been recorded as Gain on Sale of Investments; whereas all losses have been debited to Loss on Sale of Investments. In individual cases, it is necessary for the accountant to ascertain, in the light of all pertinent information, whether such gains and losses are in fact operating transactions affecting net income, or are

adjustments of fund principal and therefore to be credited or debited to the Fund Balance account or other account recording the fund surplus.

Accounting for pooled investments

For a governmental unit owning a large volume of investments, with ownership distributed among a number of funds, pooling of investment custodianship and management offers an opportunity for increasing fund revenue. This is true (1) because management of a large volume of investments permits advantageous diversification, and (2) because it brings the possibility of greater flexibility in the investment program than if the investments of each individual fund were required to be managed separately. Pooling of investments consists of changing from individual fund ownership of specific investments to individual fund ownership of an undivided or undistributed interest or equity in a collection of investments. The exact plan of pool management and related accounting procedures are subject to many variations. The illustrations which will follow represent only one possibility.

Normally a first action in the pooling operation is an inventory of all the investments to be pooled by the participating member funds, as a measure of each fund's contribution to the pool. In addition to listing the investment items to be contributed by each fund, the inventory should show, as of the effective pooling date (1) the market value of the individual item (share of stock, bond, piece of real estate, etc.), (2) accrued interest on interest-bearing debts, (3) dividends declared but unpaid on stocks, and (4) any other rights or appendages of value which may be attached to property items (rents, royalties, etc.). Management of the pool may be either internal or in the hands of an independent fiscal agent.

The illustrations which follow are designed primarily to show the flow of financial information through a fund member of a pool, without discussion of the many possible variations. To simplify and shorten the examples, accounts for unamortized premium and unamortized discount will be omitted from the entries.

1. The inventory of investments to be pooled by the Kramer Memorial Fund of the city library showed the market value of investments to be pooled to be $387,000, compared with a book value of $361,000.

Investments	26,000	
Fund Balance		26,000

2. The investments were transferred to the pool:

Pool Investments	387,000	
Investments		387,000

On the books of the fund managing the pool the following entry would be appropriate:

Pool Investments	387,000	
Fund Balance (controlling account)		387,000

A subsidiary record would show the individual fund to be credited with the balance.

Had the memorial fund been recording differences between par value and cost for some or all of its investments, the Unamortized Premium and Unamortized Discount accounts would have been reclassified as pool items in the above entry, i.e., Unamortized Premium on Pool Investments, etc. The status of discount and premium amortization in the periodic statement of earnings has been discussed elsewhere.

The fund charged with management of pooled assets buys and sells as seems advisable in the light of market and other pertinent conditions and demands. Equilibrium of earnings over a number of periods on a given total of investments is a desirable feature for many trust funds. Equilibrium of investment is a semicontrollable factor in producing equilibrium of income. One device available for bringing this about is an account which has been called Reserve for Realized Gains and Losses on Pool Investments. When pool management disposes of an investment at a gain, the amount of gain is credited to the reserve account. This causes the holding back of cash which resulted from the gain and makes it available for investment. When investments are disposed of at a loss the amount of loss is debited to the reserve. An imaginary sale of pooled investments might yield the following entry:

Pool Cash	11,970	
Pool Investments		10,000
Unamortized Premium on Pool Investments		620
Reserve for Realized Gains and Losses		1,350

This transaction is not one to be recorded on the pool members' books. A similar entry would be made for a sale at a loss, except the balancing element would be the amount of the loss, debited to the reserve. Employment of a single reserve for recording all gains and losses on sales demonstrates the cooperative nature of investment pooling.

Receipt and distribution of income may be administered by the fund operating the investment pool or by a separate fund. Regardless of the fund managing income, the receipt thereof might be recorded as follows:

Pool Cash	3,000	
Undistributed Pool Income[4]		3,000

[4] A more descriptive title for this account is Undistributed Income on Pool Investments.

Income from pool investments is distributed to participants on the basis of their relative investments in the pool.

For the fund administering pool income a distribution would be recorded as follows:

Undistributed Pool Income	40,000	
Pool Cash		40,000

Obviously the distribution of income by members might have been recorded as a liability (debit Undistributed Pool Income, credit various Due to——accounts) prior to disbursement. Receipt of income from pooled investments is recorded by the Kramer Memorial Fund in the same manner as any other receipt:

Cash	1,200	
Income on Investments (or Pool Investments)		1,200

Many details are involved in selecting the exact combination of procedures to be followed by a given institution or agency adopting the pooling method of accounting for some or all of its investments. Omitted from this discussion are other methods of measuring a participating fund's contribution to a pool, measurement of income by periods, accounting for gains and losses on disposal of investments, accounting for undistributed income, etc. Much of the variation in accounting procedure which exists is due to variations and conditions under which the pool is operated.

Subsidiary records for investments

Throughout the foregoing discussion of investment transactions, references have been made to general ledger accounts only. Obviously, from the amount of detailed information associated with investments, when the number of items exceeds 10 or 15, it becomes necessary to constitute the general ledger accounts as controlling accounts supported by a subsidiary account for each item. Furthermore, diversity of investments may call for two or more controlling accounts such as Stock, Bonds, Mortgages, Real Estate, Savings Accounts, and possibly others, each with its subsidiary ledger.

In accordance with rules stated elsewhere, ownership of large numbers of bonds makes it desirable to operate separate accounts for unamortized discount and unamortized premium. Use of the three controlling accounts for recording the bond carrying value does not require three separate subsidiary ledgers. In the one subsidiary ledger, one column (Par Value) supports the Bonds controlling account in the general ledger; the Unam-

ortized Premium column in the subsidiary ledger supports the general ledger control of the same name; and finally, the Unamortized Discount column in the subsidiary record supports the Unamortized Discount control account in the general ledger.

Statements of investments

For administration purposes, detailed statements of fund investments are indispensable. The form of such statements will vary, of course, from general summaries to well-classified schedules by items and funds. An example of the former is the statement of investments published by one institution in which a detailed listing of items by funds is given, with a columnar classification as to United States Government Bonds, Other Bonds, Capital Stock, Building and Loan Shares, Real Estate, and others. No indication is given as to whether the figures shown are at original cost, amortized cost, or market value. (See below.)

Name of Fund and Item	*United States Government Bonds*	*Other Bonds*	*Building and Loan Shares*	*Capital Stock*	*Etc.*
Memorial Fund:					
Treasury bonds..........	$14,000				
Standard Oil Company....				$1,620	
First Savings and Loan Company.............			$13,186		

Another statement of investment form provides for greater detail than the summary shown above. Examination of Illustration 8–11, presenting a partial statement modeled on a more elaborate form, reveals the superiority of the latter collection and arrangement of information.

One shortcoming of Illustration 8–11 is its limitation to use for bonds, mortgages, and notes. Because neither premium nor discount on stock is amortized, not even that form of investment can be satisfactorily included. Still less is the form suited to real estate, building and loan shares, savings accounts, etc.

With some experience the imaginative and resourceful accountant can learn to prepare a schedule to fit whatever situation he feels should be analyzed for use by the management of the investments at hand. Some of the normal requirements would likely be:

1. Exact name and date or period of the schedule.
2. Exact description (name, number, date, etc.) of the items being scheduled.
3. Maturity or expiration date, if any.
4. Cost.
5. Par or maturity value.

Illustration 8–11

CITY OF X

Statement of Bond Investments—All Funds, June 30, 1969

Description	Date Acquired	Bond or Certificate No.	Interest Rate	Maturity Date	Par Value	Unamortized Premium	Unamortized Discount	Total Book Value	Cost	Accrued Interest Purchased	Market Value
Trust and Agency Funds											
City Railway 4's	1961 and 1963	Various	4%	June 30, 1972	$ 46,300	$1,200	$400	$ 47,100	$ 48,920	$ 730	$ 47,430
General Gas Company first mortgage	1965	922–927	3½%	July 31, 1978	30,000	1,800		31,800	32,400	180	31,200
City of X sinking fund 3's	1964	72–91	3%	March 31, 1979	20,000	410		20,410	21,000		19,890
Total					$ 96,300	$3,410	$400	$ 99,310	$102,320	$ 910	$ 98,520
Representing the following:											
Employee retirement funds					$ 68,200	$2,800	$400	$ 70,600	$ 71,300	$ 405	$ 70,220
Guaranty deposit funds					7,100	160		7,260	7,400	280	7,115
Endowment funds					21,000	450		21,450	23,620	225	21,185
Total					$ 96,300	$3,410	$400	$ 99,310	$102,320	$ 910	$ 98,520
Utility Fund											
City of X sinking fund 3's	1965	61–64	3%	March 31, 1979	$ 4,000	$ 190	....	$ 4,190	$ 4,310	$ 70	$ 3,978
Western Power Company's 3½'s	1961	189–191	3½%	June 30, 1983	30,000	2,020		32,020	34,450	380	33,860
Total utility fund					$ 34,000	$2,210	....	$ 36,210	$ 38,760	$ 450	$ 37,838
Representing the following:											
Customers' deposits fund					$ 12,000	$ 640	....	$ 12,640	$ 13,720	$ 120	$ 13,200
Depreciation fund					22,000	1,570		23,570	25,040	330	24,638
Total					$ 34,000	$2,210	....	$ 36,210	$ 38,760	$ 450	$ 37,838
Total All Funds					$130,300	$5,620	$400	$135,520	$141,080	$1,360	$136,358

6. Nominal rate of return.
7. Premium or discount if items are bonds.
8. Rate of depreciation or other form of amortization if items are subject to either of those processes.
9. Information totals which agree with controlling account balances, if any.
10. Any other information which, in brief form, would be of assistance in managing the investments.

Pension and retirement funds

The rapid growth, in number, size, and complexity, of pension, retirement, and other deferred benefit arrangements has necessitated the development of new accounting techniques to record the rights and privileges of beneficiaries and obligations of the benefactors and trustees, where the latter two are different. Terms of some trust arrangements which are the results of intensive negotiations require judicial interpretation for determination of the rights and obligations of the two parties. Actuarial calculations and stipulations in the terms of some trust agreements must be accurately and precisely reflected in the manual of accounts, which leads to an increased number of accounts in order to properly describe all facets of the agreement.

It is beyond the scope of this book to provide a discussion of pension, retirement, etc., fund accounting that would do justice to the more important aspects of the subject. A discussion and illustration of entries for a variety of equity or reserve transactions is contained in the National Committee on Governmental Accounting's 1968 manual.[5]

Nongovernmental uses of trust funds

Thus far, trust funds have been discussed in connection with their use in civil government. Other uses of trust fund procedures are many and varied. Practically all institutions of higher learning, even those supported primarily by the state, make use of trust funds—some of the institutions doing so on a very large scale—to account for endowments and other grants. Many hospitals require trust funds on account of gifts, both expendable and nonexpendable, for assistance in hospital financial operations.

In addition to those uses of trust funds already mentioned, they abound among private organizations—churches, benevolent societies, fraternal and social organizations, labor unions, and cemeteries, for example. In accounting for nongovernmental trust funds, since there is no general pattern of purposes, the need for careful investigation into what each fund can and cannot do, alluded to earlier in this chapter, is of paramount importance.

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[5] National Committee on Governmental Accounting, *Governmental Accounting, Auditing, and Financial Reporting* (Chicago: 1968), pp. 76–78.

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QUESTIONS

1. In the text of this chapter it is stated that book value of corporate stock at time of disposal will be the same as cost. Is this true of common stock which has been the subject of a stock dividend or stock split between the time of acquisition and of disposal? Explain.
2. The federal social security fund makes payments to beneficiaries without regard to the amounts paid in by the given beneficiaries. What bearing has this upon the method of accounting for income on investments owned by the fund?
3. The management of a certain endowment fund is required to invest

money of the fund in bonds that will yield at least 3⅝ percent per year. Which method of amortizing premium or discount (straight-line or scientific) is indicated by that stipulation?

4. Bonds with a par value of $15,000 were purchased for a trust fund:
   a) Record purchase of the investment at 102, with the par value and premium recorded separately.
   b) Record amortization of $25 of the premium.
   c) Record purchase of the investment at 98, with par value and discount recorded separately.
   d) Record amortization of $25 of the investment.
   e) State the book, or carrying, value of each investment after four periods of amortization at $25 each.
5. It is possible for permanent agency fund to have, in a normal manner, no financial structure (no balance sheet) at the end of a fiscal period. How?
6. What do you think would be the most important subsidiary record of a retirement fund for the employees of a governmental unit?
7. What condition or circumstance would be most fitting for use of each of the following three methods of disposing of discount on bond investments:
   a) Scientific?
   b) Straight-line?
   c) Taking up all gain on discount when the investment is sold or otherwise disposed of?
8. The County of Rumford historical museum endowment fund illustrations (Illustrations 8–1 through 8–7) omit closing entries. Refer to information given in the illustrations and make an appropriate closing entry or closing entries for the fund at December 31, 1969.
9. If a trust fund has most of its resources invested in corporate bonds which were acquired at a discount, what stringency may arise if discount is amortized periodically and all income of the fund is expendable?
10. A cemetery perpetual care fund received by bequest $60,000 par value of Inland Corporation 4 percent bonds which were recorded at $58,800, the market price at date of receipt. Maturity date of the bonds was 10 years hence.
    a) For practical purposes why is it necessary to employ straight-line amortization for determining periodical effective interest in this exercise?
    b) What is the annual income on this investment if amortization of discount is considered to be a function of income?
    c) What is the annual income if the "general rule" is applicable?
    d) Considering discount amortization as a function of income and assuming that interest for the last period has been recorded, make an entry for maturity of the bonds.
    e) Again assuming that last period interest has been recorded, make an entry for maturity of the bonds if the "general rule" has been in effect.
11. In accounting for a testamentary trust, there is a problem of separating the items that should be charged against principal from the items that

should be charged against income. As to each of the following items, you are to state whether it should be charged against principal or against income, assuming that the most general rule of law is to be followed. Give any explanation you may consider necessary in connection with your answers.

a) Federal estate taxes paid.
b) Interest paid on mortgage on real estate.
c) Depreciation of real estate.
d) Legal fees for collection of rent.
e) Special assessment tax levied on real estate for street improvement.
f) Amortization of premium on bonds which had been purchased by the testator.
g) Loss on sale of trust investments.
h) Taxes on vacant city lots.

(AICPA)

PROBLEMS

1. Compute the cost of each of the investments described below by each of the two methods described in this chapter. There is no accrued interest.
   a) $100,000 par value of 3½ percent bonds (interest J and D 1), to mature on December 1, 1975, bought on June 1, 1969, to yield 3 percent compounded semiannually.
   b) $100,000 par value of 4 percent bonds (interest F and A 1) to mature on August 1, 1979, bought on August 1, 1969, to yield 5 percent compounded semiannually.

   (In using amounts from Appendix 3, Table A, for this problem, four decimals may be dropped, and from amounts in Table B, three may be dropped.)

2. *a*) Compute the net amount of premium or discount on each of the following investments:

   (1) $30,000 par value of corporate bonds, interest at 3 percent, payable semiannually, purchased half way through an interest period at 99⅝ (not including accrued interest), with brokerage and various other incidental costs of $141.
   (2) $40,000 par value of corporate bonds, interest at 4 percent, payable semiannually, purchased three fourths of the way through an interest period, at 101 (including accrued interest) with brokerage and other incidental costs of $167.
   (3) $10,000 par value of corporate bonds, interest at 4 percent, payable semiannually, purchased one fourth of the way through an interest period, at 102 and accrued interest, with brokerage and other incidental costs of $49.

   b) In each of the above three cases what was the total cash outlay in the purchase?

3. On January 1, 1952, Cromwell Manufacturing Company issued $500,000 par value of term bonds scheduled to mature January 1, 1972. They bear interest at 4 percent per annum, payable semiannually, J and J 1.
   You are required to do the following things:

a) Assume $20,000 par value of the bonds were acquired by a trust fund on July 1, 1969, at a price to yield 3 percent per annum, compounded semiannually, and determine the purchase price.
b) Assume $20,000 par value of the bonds were acquired by a trust fund on July 1, 1969, at a price to yield 5 percent per annum, compounded semiannually, and determine the purchase price.
c) Prepare a premium amortization schedule for purchase of the bonds at a 3 percent effective rate.
d) Prepare a discount amortization schedule for purchase of the bonds at a 5 percent effective rate.
NOTE: For this problem amounts from Appendix 3, Table A, may be rounded to four decimals and those from Table B to three decimals. Doing this will sacrifice some accuracy of results.
e) What would be the correct designation of the table prepared for part (*d*) if one wishes to describe it as an *accumulation* arrangement?

4. In the city of Oxford there were four trust and agency funds: metropolitan school system employees' general retirement fund, city employees' retirement fund, employees' benefit plan fund, and payroll deductions fund. Below are several paragraphs of financial information as of June 30, 1969, about the four funds.

(1) Total general cash of the four funds aggregated $702,816, distributed: $103,590 to the school system retirement fund; $476,381 to city employees' retirement fund; $91,077 to the benefit plan fund; and the balance to the payroll deduction fund. In addition to general cash, the school system fund had $307 of petty cash.
(2) Fund members and disability pensioners owed a total of $131,874 accounts receivable, distributed: general city employees, $60,104; school system, $71,009; and the balance to the benefit plan. Only the school system carried an allowance for losses that amounted to $1,202.
(3) For contributions and transfers to the benefit plan fund, various other city funds owed it $92,066.
(4) Ownership of United States savings bonds by the funds totaled $30,374,000, distributed: $18,999,000 to the city employees' retirement fund; $11,075,000 to the school system; and the balance to the benefit plan fund.
(5) United States Treasury bonds having a current redemption value of $5,039,654, owned by the funds, were distributed: $3,001,218 to the city employees' fund; $1,992,003 to the school system; and the remainder to the benefit plan.
(6) Two of the funds owned $14,661,000 par value of city of Oxford bonds. Of this, $11,044,000 belonged to city employees' fund, and the remainder to the school system.
(7) The city of Oxford bonds had been acquired at a premium. At June 30, 1969, the unamortized balance on the $14,661,000 par value totaled $399,874, of which $198,444 was applied to bonds held by the school system fund and the balance to city employees' retirement fund.
(8) Accrued interest income at June 30, 1969, consisted of $286 for the employees' benefit plan; $47,401 for the school system; and $164,713 for the city employees.
(9) The school system retirement fund had prepaid insurance of $114, and office furniture and fixtures with an unamortized cost of $6,411, while the benefit plan fund had prepaid hospital and surgical benefit premiums of $16,409.
(10) Accounts payable to members and beneficiaries totaled $53,418, owed as follows: $19,003 by the benefit plan; $30,001 by the school system; and the balance by the city employees' fund. Sundry accounts payable of $20,105 were owed by the benefit plan fund, and $193 by the school system fund.
(11) The school system fund owed $16 to other funds and $901 to employees, while the payroll deduction fund was owing $1,816 to other funds.

You are required to do the following things:

a) Prepare a trial balance for each of the funds at June 30, 1969. The balance of each fund will have to be derived. If desired, these may be in combined columnar form.

b) Give the probable reason or reasons why the payroll deduction fund has so few accounts compared with the other three funds.

c) Give the probable reason or reasons why the four funds had such a small amount of liabilities except to members and beneficiaries.

5. At December 31, 1968, the Ambrose C. Rubey Memorial Loan Fund at Clear Springs College had the trial balance shown below. Loans are noninterestbearing and the fund is fully nonexpendable.

	Debit	*Credit*
Cash	$ 420	
Loans receivable	15,800	
Investments	10,100	
Fund balance		$26,320
	$26,320	$26,320

During 1969 the following transactions, in summary form, occurred.

(1) Investments carried at $3,080 were sold for $3,190 to accommodate additional loan applicants.
(2) Announcement of a stock split of 2 for 1 was in connection with the 100 shares of $15 par value Ralston Corporation common stock received as a gift when the market price was $21 per share.
(3) $3,070 cash was received in payment of loans which had been made to former students.
(4) $250 was received from the family of a former student in full payment of a loan which had been written off when the borrower was reported killed in military action.
(5) $4,180 was loaned during the year.
(6) A loan of $75 was written off as uncollectible after prolonged efforts to locate the borrower had proved unsuccessful.
(7) A contribution of $300 in cash was received as a gift from a former borrower from the fund.

You are required to do the following things:

a) Record the December 31, 1968, balances in T accounts or on columnar paper, with two lines allowed for each account.

b) Record the 1969 transactions, recording changes in Fund Balance directly in that account.

c) Take a trial balance and prepare a balance sheet of the fund at December 31, 1969.

d) Prepare a statement of changes in the fund balance.

6. At X College a student organization agency fund is operated by the college administration to serve as the receiving and disbursing agent for

various campus organizations. Money collected by the affected organizations is presented to a college administrative office for deposit, with credit to Fund Balance, a controlling account, and to the proper subsidiary ledger account. Expenditures made by the organizations are reported to the administrative office and disbursements are made on behalf of the reporting organization, whose ledger account is charged. Money not expected to be needed soon is transferred to the college investment pool. Income on investments is transferred to a general current fund which pays operating expenses of the agency fund.

At June 30, 1969, the student organization agency fund had the following trial balance:

	Debit	*Credit*
Cash	$21,490.00	
Investments	27,692.04	
Vouchers payable		$ 8,188.02
Fund balance		40,994.02
	$49,182.04	$49,182.04

During the next six months the following transactions occurred:

(1) Purchases of investments were vouchered in the amount of $19,860, which included $310 accrued interest (debit Accrued Interest Purchased).
(2) $92,675.30 was received from student organizations for deposit.
(3) Uncollectible checks totaling $297 were charged back to various student organizations.
(4) During the period, the college transferred to its general current fund the amount of $15.20 held in the name of an organization which had been defunct for several years (not vouchered).
(5) During the period, the college trustees decided to pool the investments of all institutional funds and those belonging to the student organization agency fund, including those reported in the first transaction, were transferred at book value to the pool (debit Investments—Pool).
(6) Cash received as interest on investments during the period amounted to only $790, which included the amount of interest which had been purchased. The actual income was credited to Due to General Current Funds. All other income collected during the period (on pooled investments) was collected by the college administration and retained to cover costs of administering the fund.
(7) Bills and statements presented by student organizations for payment during the period totaled $89,404, which was vouchered and charged to their accounts.
(8) Payment was stopped on $180 of old outstanding checks, while other old checks for which the payees could not be located were voided, and the total of $430 was credited back to the respective student organizations.
(9) Towards the end of the period it became necessary for the college administration to transfer $5,000 from the agency fund's share in pooled investments to its cash account.
(10) One organization disbanded and its credit of $92.80 was refunded for distribution among its members. The transaction was vouchered.
(11) $7,861.00 of vouchers payable remained unpaid at the end of the period and the amount owing to the general current funds had not been settled.

You are required to do the following things:

a) Open T accounts for the student organization agency fund for

June 30, 1969, journalize and post the above transactions, and take a trial balance for December 31, 1969. (Direct posting from transactions to T accounts and also use of a worksheet are acceptable.

b) State how the balance on deposit at a given time to the credit of a given student organization would be determined.

7. From the ledger accounts and transactions in the preceding problem (Problem 6) you are required to prepare a statement of cash receipts and disbursements for the student organizations agency fund for the six months ended December 31, 1969. In determining the amounts paid for various purposes by the payment of vouchers payable, it may be assumed that both the beginning and ending unpaid balances of vouchers payable were for expenses of student organizations. All debits and credits to Cash during the period, however made, are to be included as receipts or disbursements.

8. The city of Kingston had a recreation project established by a wealthy former resident of the city. Activities of the project were carried on through a recreation endowment fund and a recreation operating fund. The former was nonexpendable as to principal, but its net income was automatically due to the operating fund, an expendable trust fund. At December 31, 1968, the trial balances of the two funds were as follows:

ENDOWMENT FUND

	Debit	*Credit*
Cash	$ 7,830	
United States government bonds	12,500	
Accrued interest on bonds	75	
Corporation common stock (par)	30,000	
Land	12,000	
Buildings	88,000	
Allowance for depreciation—buildings		$ 28,400
Prepaid insurance	860	
Vouchers payable		630
Accrued expenses		60
Due to operating fund		4,180
Fund balance		117,995
	$151,265	$151,265

OPERATING FUND

	Debit	*Credit*
Cash	$ 2,650	
Due from endowment fund	4,180	
Vouchers payable		$ 230
Fund balance		6,600
	$ 6,830	$ 6,830

During the year 1969, the following transactions, stated in summary form, occurred:

(1) Rental collected on the building amounted to $7,200.
(2) A regular dividend of 6 percent and an extra of 3 percent were received.

(3) Repairs and maintenance on the building were vouchered in the amount of $1,050.
(4) Insurance premiums vouchered during the year amounted to $240.
(5) Interest of $250 was received on the government bonds. This included the amount accrued at December 31, 1968.
(6) A contribution of $5,000 par value, 4 percent corporation bonds was received on May 15. At the date of receipt, these bonds were quoted at 103 and interest. Interest of $75 was accrued on the bonds at the time of the gift. Maturity date of the bonds was June 30, 1972.
(7) A semiannual interest payment was received on the corporation bonds.
(8) Miscellaneous expenses, arising from the operation of the building, were vouchered in the amount of $360.
(9) The endowment fund paid $3,000 to the operating fund.
(10) During 1969 the operating fund vouchered $2,000 for personal services, $600 for expendable recreation equipment and supplies, and $290 for miscellaneous expenses.
(11) At the end of 1969 the operating fund had no vouchers payable.
(12) During 1969 the accrued expense of December 31, 1968, was vouchered.
(13) The endowment fund had only $220 of unpaid vouchers at the end of the year, and these were for building repair and maintenance.
(14) The balance of the amount due the operating fund from December 31, 1968, was paid.

Below are stated a number of things, all or some of which may be required for this problem. Total requirements probably represent enough work for a two-day assignment.

Requirements:

a) Record the accounts of the two funds at December 31, 1968.

b) Record the 1969 transactions of both funds.

c) Make the adjusting entries.
Adjusting information, other than for premium amortization, for the endowment fund at December 31, 1969, was as follows:

1) Accrued interest on bonds (governmental and corporation), $115.
2) Prepaid insurance, $740.
3) Accrued miscellaneous expense, $290.
4) Depreciation of building, 2 percent per year on cost.

d) Prepare for each fund the following statements:

1) Balance sheet.
2) Statement of cash receipts and disbursements. (For the endowment fund, assume that both the vouchers payable and the accrued expense at December 31, 1968, were for building repair and maintenance. For the operating fund, assume that the December 31, 1968 vouchers payable were for recreation supplies.)
3) Statement of changes in the fund balance.

e) Prepare a statement of income and expense for the endowment fund.

f) Make closing entries for both funds.

9. At December 31, 1968, the police and fire employees' retirement fund, city of Claremore, had the following trial balance:

	Debit	Credit
Cash	$ 124,533.56	
Accounts receivable—members and disability pensioners	1,550.80	
U.S. Treasury bonds (at par)	5,240,000.00	
U.S. savings bonds (present redemption value)	757,019.50	
City of Claremore bonds (at par)	3,696,000.00	
Unamortized premium on investments	81,011.91	
Accrued interest on investments	48,830.50	
Accounts payable—members and beneficiaries		$ 1,185.47
Reserve for pensions		9,947,760.80
	$9,948,946.27	$9,948,946.27

Transactions during 1969 were as follows:

(1) Members' contributions received in cash during the year amounted to $1,276,863.60, of which the amount of $1,550.80 was in settlement of amounts unpaid at the end of last year.
(2) The city general fund paid the city's contribution of $2,346,944.00.
(3) Purchases of investments during the year were as follows: United States savings bonds, $1,387,740.00; city of Claremore, $962,000 par value at a premium of $5,505.92; interest accrued at time of purchase of the bonds amounted to $9,363.69. (Debit Income on Investments.)
(4) Payments to pensioners during the year amounted to $1,872,089.49, which included the amount due to members and beneficiaries at the end of last year.
(5) On account of retirement from the fund, various members withdrew a total of $61,419.69.
(6) City of Claremore bonds of a par value of $500,000, on which all premium had been amortized, were redeemed during the year.
(7) Unclaimed checks were redeposited during the year in the amount of $1,058.89. They were credited against pensions paid during the year.
(8) Cash collections of income on investments during the year totaled $260,082.80, which included the amount accrued at the end of last year. Income accrued at the end of 1969 amounted to $62,077.93.
(9) Amortization of premium for 1969 was $6,185.32.
(10) Redemption value of U.S. savings bonds increased by $22,630 during the year.
(11) At the end of 1969, members' contributions due but not paid amounted to $2,287.05.
(12) Pensions due but not paid at the end of 1969 amounted to $655.18.
(13) No administrative costs were borne by the retirement fund, since they were paid by the general fund.

You are required to do the following things:

a) Record the account balances for December 31, 1968. Omit vouchering.
b) Record the 1969 transactions. Additional account titles: Contributions—Members; Contributions—City; Pensions Paid (includes due but not yet disbursed); Withdrawals by Members; Income on Investments.
c) Prepare closing entries for December 31, 1969. Post to accounts.
d) Prepare a balance sheet for December 31, 1969.
e) Prepare a statement of cash receipts and disbursements for 1969.
f) Prepare a detailed statement of changes in Reserve for Pensions and Annuities. List individual increase items and individual decrease items.

For this problem it is permissible to use journalizing and posting, direct posting to T accounts, or a worksheet.

10. Among the trust funds of which the Clear Creek Cemetery Association was trustee was one designated as the Stipp Memorial Fund. In 1969, the cemetery association trustees took action to pool the investments of all funds of which it was the trustee. A separate fund, Pooled Investments Fund, was established to account for all assets pooled. A Pooled Investment Income Fund was established by that fund to account for receipts and distributions of pooled income.

The following transactions occurred:

(1) Investments carried by the memorial fund at $64,000 were inventoried at $69,000.
(2) The $69,000 of investments were transferred from the Memorial Fund to the Pooled Investments Fund.
(3) From cash pooled by various individual funds, investments were purchased at a cost of $380,000, which included $10,000 premium.
(4) Later in the year, due to changes in the security market, bonds which had cost $17,000, of which $500 was premium and on which no premium had been amortized, were sold for $17,120.
(5) Other bonds which had cost $8,200 were sold for $8,110. Of the cost, $200 was premium, none of which had been amortized.
(6) Cash income received by the Pooled Investment Income Fund totaled $16,380.
(7) In a distribution of income for the year, the Stipp Memorial Fund received $2,070 from the Pooled Investment Income Fund as its share after amortization of premiums. Total distributed was $14,100.

You are required to show for each transaction the entry or entries which should have been made on the books of the fund or funds affected. For each transaction indicate for each entry the fund to which it pertains.

11. The town of Big Springs had not been operating a public library prior to October 1, 1968. On October 1, 1968, James Jones died, having made a valid will which provided for the gift of his residence and various securities to the town for the establishment and operation of a free public library. The gift was accepted by the town. The library funds and operation were placed under the control of trustees. The terms of the gift provided that not in excess of $5,000 of the principal of the fund could be used for the purchase of equipment. building rearrangement, and purchase of such "standard" library reference books as, in the opinion of the trustees, were needed for starting the library. Except for this $5,000. the principal of the fund is to be invested, and the income therefrom used to operate the library in accordance with appropriations made by the trustees.

The property received from the estate by the trustees was as follows:

Description	*Face or Par*	*Appraised Value*
Residence of James Jones:		
Land	...	$ 2,500
Building (25-year estimated life)	...	20,000
Bonds:		
AB Company	$34,000	32,000
C and D Company	10,000	11,200
D and G Company	20,000	20,000
Stocks:		
M Company, 6 percent preferred	12,000	12,600
S Company, 5 percent preferred	10,000	9,600
K Company, common (300 shares)	No par	12,900
GF Company (200 shares)	4,000	14,500

The following events occurred in connection with the library operations up to June 30, 1969:

(1) 100 shares of GF Company stock were sold on November 17, 1968 for $6,875.
(2) Cash payments were made for (*a*) alteration of the house, $1,310; (*b*) general reference books, $725; and (*c*) equipment having an estimated life of 10 years, $2,180. The trustees state that these amounts are to be charged to principal under the applicable provision of the gift.
(3) The library started operation on January 1, 1969. The trustees adopted the following budget for the year ended December 31, 1969:

Estimated income from investment	$5,000
Estimated income from fines, etc.	200
Appropriation for salaries	3,600
Appropriation for subscriptions	300
Appropriation for purchase of books	800
Appropriation for utilities, supplies, etc.	400

(4) The following cash receipts were reported during the six months to June 30, 1969:

Sale of C and D Company bonds, including accrued interest of $80	$11,550
Interest and dividends	3,100
Fines	20
Gift for purchase of books	200
Total	$14,870

(5) The following cash payments were made during the six months to June 30, 1969:

Purchase of 100 shares of no-par common stock of L and M Company, including commission and tax cost of $42.50	$ 9,655
Payment of salaries	1,500
Payment of property taxes applicable to the year ended December 31, 1968, based on an assessment as of June 30, 1968	200
Purchase of books	900
Magazine subscriptions	230
Supplies and other expense	260
Total	$12,745

(6) On June 30, 1969, there were miscellaneous expenses unpaid, but accrued, amounting to $90. Also, there were outstanding purchase orders for books in the amount of $70.

Assuming the town records budgetary accounts, prepare all statements necessary to show results of operation to June 30, 1969, and the financial position of the library as of June 30, 1969. Where alternate treatment of an item is possible, explain the alternate treatment, and state the justification for your treatment.

(AICPA, adapted)

(AUTHORS' NOTE: Published solutions for this problem are based on application of the general rule governing classification of transactions as to principal and income.)

CONTINUOUS PROBLEM

8–L. The city of Bingham (see Problems 1–L. through 7–L.) has had an Employees' Retirement Fund for many years. The fund is financed by actuarially determined contributions from the city general fund; the

employees make no contribution. Administration of the retirement fund is handled by general fund employees and the retirement fund does not bear any administrative expenses.

The balance sheet of the retirement fund as of the beginning of the year with which this problem is concerned is shown below:

CITY OF BINGHAM

Employees' Retirement Fund

July 1, 19—

Assets			*Liabilities, Reserves, and Fund Balance*	
Cash		$ 6,360	Annuities payable	$ 6,000
Interest receivable on investments		15,000	Reserve for employer contributions	550,000
Investments, at par	$750,000		Reserve for membership annuities	204,600
Add: Unamortized premium	840	750,840	Reserve for variation in actuarial assumptions	3,600
			Reserve for undistributed interest earnings	2,200
			Fund balance	5,800
Total Assets		$772,200	Total Liabilities, Reserves, and Fund Balance	$772,200

a) Open a general journal for the Employees' Retirement Fund of the City of Bingham. Record the following events in the general journal.

(1) The interest receivable on investments as of the beginning of the year was collected in cash.
(2) A liability for annuities payable was recorded in the amount of $75,000.
(3) Contributions from the general fund in the amount of $49,980 were received.
(4) Interest earnings received in cash amounted to $30,000; additional interest earnings were accrued in the amount of $16,000. One twelfth of the beginning balance of premium on investments was amortized.
(5) Annuities in the amount of $78,000 were paid.
(6) Contributions from the general fund in the amount of $54,500 were received.
(7) Contributions revenue for the year was transferred to the appropriate reserve account.
(8) Advice from the actuary resulted in a transfer of $81,000 from the Reserve for Employer Contributions to the Reserve for Membership Annuities because of retirements during the year.
(9) Interest earnings of $12,800 were distributed to Reserve for Membership Annuities and interest earnings of $35,200 were distributed to Reserve for Employer Contributions; the balance of the Interest Earnings account was closed to the Reserve for Undistributed Interest Earnings.
(10) Investments of $70,000 were purchased at par.
(11) Make all necessary closing entries.

b) Prepare an Employees' Retirement Fund balance sheet as of year-end.

c) Prepare a Statement of Cash Receipts and Disbursements of the retirement fund for the year.

d) Prepare a Statement of Changes in Fund Balance for the retirement fund for the year.

e) Prepare an Analysis of Changes in Retirement Reserves for the retirement fund for the year.

Chapter 9

Intragovernmental Service Funds

Funds of this category have had, and to an extent probably will continue to have, such designations as "rotary," "revolving," and, most recently, "working capital." While convenient to use in speaking and writing, the last-named appellation was thought to be potentially misleading through association with the same words used to signify the excess of current assets over current liabilities in the balance sheet of any enterprise which uses those classifications of financial information. Notwithstanding the latest change in designation, the missions and operations of this kind of fund remain basically unchanged. "Intra" is a Latin word meaning "within," so an intragovernmental service fund is one dedicated to service within the governmental unit to which it is attached, the historical mission of this class of funds. To economize on space and time, intragovernmental service funds will usually be referred to in this chapter as IGS funds. When a specific fund must be mentioned, it will usually be referred to as a stores and service fund, a printing fund, a garage fund or some other specific kind of fund.

Characteristics of intragovernmental service funds

IGS funds are characterized by a twofold diversity: diversity of purpose and diversity of accounting procedures. Purposes include the maintenance of central procurement systems for purchase, storage, and issuance of supplies and equipment; the rendering of services such as photography, printing, and maintenance and operation of vehicles and equipment; the operation of fabricating enterprises such as stone crushers, asphalt plants, and other manufacturing activities carried on by government generally and institutions in particular; and the furnishing of capital on a temporary basis for other funds, such as debt service funds and special assessment funds. Accounting procedures for IGS funds vary from the use of simple records built around four or five ledger accounts to extensive accounting systems including records for job order cost accounting. A second characteristic is their function of serving other governmental funds primarily, in contrast with enterprise funds, which serve the public principally and

other governmental departments or activities on an incidental basis. A third characteristic of IGS funds is that their functions and operations often (but not invariably) necessitate the use of revenue and expense accounts, in order to permit equitable proration of costs and to prevent unrevealed impairment of fund capital.

Like enterprise funds and a few trust funds, some IGS funds include depreciable fixed assets in their accounts. If the fund actually owns and uses fixed assets, it is desirable and customary to record them in its accounts for three reasons, as follows:

1. A more accurate statement of operating cost is obtained by the inclusion of depreciation of fixed assets used. Presumably, fixed assets owned by a working capital fund will have to be replaced through fund operation; so the amortizations of their cost should be included as an expense.
2. Fund capital—which will probably represent, in part at least, the equity in fixed assets originally invested in or subsequently acquired—is properly accounted for.
3. IGS funds may be established or increased from assets acquired through borrowing, to be repaid by the fund itself, in which event fund fixed assets may represent at least partial security for the loan or bond issue.

Even though an IGS fund may use only fixed assets belonging to other funds, depreciation will normally be recognized, probably in memorandum form, in order to give an accurate statement of the cost of services rendered.

Origination of IGS funds

Having been authorized by some legally competent authority, an IGS fund ordinarily originates with the receipt of cash or other assets from another fund or some governmental agency. Receipts may represent (1) outright grants or contributions, (2) long-term advances, or (3) proceeds of bond issues. If the assets are received on a long-term advance basis, the IGS equity account for this advance should clearly disclose the liability nature of the item. If, on the other hand, the assets are received on a permanent basis, the equity account may be designated as "Contribution from General (or other) Fund." A possible substitute for this title is "Capital," with the exact source being recorded in the books of entry in explanatory or memorandum form. New accretions or reductions of capital through fund operations would be debited or credited to Retained Earnings. At one time it was common to record all capital of an IGS fund in a Fund Balance account, which would be debited or credited as required for loss or gain from operations.

Assuming that an IGS fund is established by a contribution from the general fund, the initial entry on its books would be as follows:

Cash..	25,000	
Contribution from General Fund........................		25,000

The general fund would record this transaction in the same manner as any other expenditure. The nature of the expenditure and terms thereof, should be clearly explained. In some manner, the recipient fund's records should state clearly the source of this initial contribution, to the end that in the event of the liquidation of the fund or the reduction of its capital the contributor may benefit from the liquidation or reduction, if so desired by those in authority.

If the fund originates from a long-term advance, an approximate entry would be the following:

Cash	25,000	
Long-Term Advance from General Fund (or Capital Advance from General Fund)		25,000

Whatever title may be used for the credit member of the above entry, its nature will be that of a long-term liability, thus to be shown in the fund balance sheet. The terms of the transaction represented by the above entry may stipulate the accumulation of an IGS fund surplus from earnings of the fund and the gradual liquidation of the long-term advance as the surplus grows.

The recording of the above transactions on the creditor fund's books will depend to a considerable extent on the laws or regulations governing the fund's operations. Perhaps the prevalent situation is represented in the following entry, assumed to be on the general fund books:

Long-Term Advance to IGS Fund	25,000	
Cash		25,000

The debit title clearly differentiates the account from the common Due from Other Funds account, extensively used to record interfund short-term relationships. Since the transfer represented above has the effect of reducing general fund assets available for appropriation expenditures, the fact probably should be set forth in an entry evidencing a reservation of fund balance to cover the segregated amount. The following would accomplish a satisfactory transfer:

Fund Balance	25,000	
Reserve for Long-Term Advance to IGS Fund		25,000

Assets received from a bond issue may be recorded in an entry identical (as to account titles) with the one recording the general fund contribution. Assuming that the bond issue has been authorized solely to provide initial capital for the IGS fund, bond issue entries might be recorded as shown below:

Cash	100,000	
Due to IGS (or Garage, or Stores and Services) Fund		100,000
To record sale of bonds for purpose indicated.		
Due to IGS (or other) Fund	100,000	
Cash		100,000
To record transfer of bond proceeds to IGS (or other) fund		

As reported in Chapter 6 (Capital Projects Funds), a bond issue of the kind above does not fit into any one of the standard classes of funds. It merely records the sale of bonds, with following transfer of proceeds to another fund. The entries shown above could be elaborated upon but without any apparent value, unless for compliance with laws or ordinances which might require a more detailed set of entries.

During the past few years there have been some clearly defined changes in the generally accepted view of how the "capital" of an IGS fund should be recorded. Without discussing or appraising these changes it may be said that the weight of authority now favors stating capital (excess of assets over liabilities) in one or both of two accounts:

1. Contribution from ———.
2. Retained Earnings.

The meaning and use of these two titles should be sufficiently well known to obviate a need for explanation at this point. For stores and other similar kinds of IGS funds that are planned to operate on the basis of cost, no earnings would ever be intended. In such a fund, for any excess or deficiency of periodic cost compared with total amounts charged, the title "Fund Balance" would be preferable.

Omission of budgetary accounts

Unless mandated by law, IGS fund procedure does not usually include operation through appropriations formally recorded in the fund accounts. There are two reasons for this deviation from the usual expenditures practice, as follows:

1. Supplies, equipment, or services furnished by such funds go to other funds, in the main, and are chargeable to the appropriations or other comparable authorizations of those other funds. That is to say, IGS fund expenditures are intermediate stages in the expenditures of other funds; and since they have been authorized or appropriated for by one fund, it is unnecessary to repeat the operation.

2. Regulating supply and service activities through formal appropriations, to be strictly adhered to, might even interfere with proper functioning of the fund. Its primary purpose is to supply the total amount of service required by other funds. If these total requirements should exceed the amount authorized for the servicing fund, it would mean curtailing service below the amount needed or resorting to the legal procedure set forth for enactment of additional appropriations.

In some jurisdictions a compromise is practiced between no appropriations and the formal legal appropriation plan. It consists of an informal expenditure budget which does not go beyond memorandum form. It may have the flexibility of a commercial expenditure budget, thus serving as a guide to fund management, without the possible restrictive effects of a legally binding appropriation.

Elimination of formal appropriation accounting raises the question of use or nonuse of encumbrance accounting. It may be argued that, since the IGS fund has no formal appropriation, it has no stated authorization to be encumbered. This being the case, opinions differ as to whether the encumbrance procedure typical of certain other funds can have any value for IGS fund operation. One writer has advanced four specific reasons for recording encumbrances of funds other than the general and special revenue funds:

1. To prevent expenditures from exceeding the fund balance.
2. To keep cash demands from exceeding cash supply.
3. To give fund statements that will report the extent to which fund assets are earmarked although not obligated.
4. To assist the central accounting office in determining whether the fund's operations conform to its basic provisions.[1]

Practical considerations in determining whether or not to apply encumbrance procedures to IGS fund accounting would seem to be the size of the fund and the variety and complexity of its operations.

Stores intragovernmental service fund

One of the simplest examples of an IGS fund is a stores fund, which records very little other than the purchase and issuance of stores, and collections from the organizations receiving the stores, with all operating and overhead expenses paid and accounted for by some other fund, usually the general fund. So simple is this arrangement that in many cases a separate IGS fund is not established, but the stores department is operated as a part of the general fund activity. Illustrative transactions and entries for a simple stores fund are as follows:

Cash	1,000	
Advance from General Fund		1,000
To record establishment of working capital fund.		
Stores	800	
Vouchers Payable		800
To record purchase of stores.		
Due from General Fund	100	
Stores		100
To record issuance of stores at cost to general fund.		

[1] Fladger F. Tannery, *State Accounting Procedures* (Chicago: Public Administration Service, 1943), p. 127.

Vouchers Payable	800	
Cash		800
To record payment for stores purchased.		
Due from Various Funds	400	
Stores		400
To record issuance of stores at cost.		
Cash	100	
Due from General Fund		100
To record receipt of payment for stores issued to the general fund.		

In the operation of such a fund, it is not always possible to determine the exact cost of specific issuances. Therefore, it is to be expected that an inventory of stores at the end of a fiscal period will produce a total at variance with the balance of the Stores account, which, it should be mentioned, is likely to be a controlling account for subsidiary stores accounts for the several items handled. If it is assumed that a physical inventory showed a total of $325, rather than $300 as shown by the Stores account, an entry should be made to adjust the perpetual inventory balance to agree with the physical inventory total, in the form illustrated below:

Stores	25	
Fund Balance[2]		25
To adjust Stores account balance to agree with physical inventory.		

Obviously, subsidiary stores accounts should be adjusted to physical inventory detailed figures with respect to those items on which the two differ. Had the physical inventory total been less than the Stores account balance, the entry presented above would be reversed, throwing the fund into a temporary deficit position.

A balance sheet of the stores fund at this juncture would appear as shown in Illustration 9–1.

Illustration 9–1

CITY OF YARMOUTH

Stores Fund
Balance Sheet, June 30, 1969

Assets		*Liabilities and Fund Balance*	
Cash	$ 300	Advance from general fund	$1,000
Stores	325	Fund balance	25
Due from various funds	400		
Total Assets	$1,025	Total Liabilities and Fund Balance	$1,025

[2] Since a supplies fund of the sort illustrated here operates on an "at cost" basis, it should have no earnings; so Fund Balance seems a more appropriate title for this excess.

If the IGS fund is required to bear its operating expenses, but it is not desired to have a detailed accounting for these costs, satisfactory results may be obtained by the addition of an Overhead account, to be charged with all operating costs of the fund. Payments of operating expenses would be typified by the following entry:

Overhead	75	
Cash		75

Since all costs of the stores fund must be absorbed by those who use its services, it becomes necessary to absorb overhead expenses through amounts charged for issuances. This may be accomplished (1) through transfers from the Overhead account to the Stores account after each purchase of stores or (2) through the loading of each charge for stores issued with a portion of the overhead. Regardless of the method used, some predetermined arbitrary basis—probably the cost of the stores—would have to be employed for deciding the amounts of transfers from one account to the other. The loading of overhead might logically be in terms of a percentage of cost, the percentage used being based on past experience, modified by provision for any change expected in the relationship during the current period. If it is assumed that the loading rate is 10 percent and that stores that cost $1,000 have been received, the following entry would be made:

Stores	100	
Overhead		100

Issuances of stores when this method is followed would then be charged out at 110 percent of cost, crediting Stores for the marked-up amount.

If the loading is based on the cost of stores issued, the entry for the issuance of stores that cost $1,000 would be as follows:

Due from Other Funds	1,100	
Stores		1,000
Overhead		100

A stores fund is likely to use some of its own merchandise in its own operations. This is a sort of overhead, to be charged to the account of that name. Should the merchandise consumed be loaded with overhead when the transaction is recorded? The answer is negative. Since Overhead is to be charged for the transaction, any amount removed from overhead by the loading operation would be returned to it in the same transaction.

Over- or underapplied overhead

Since Overhead is debited on an actual basis and credited on an estimated basis, it is apparent that at any given time and at the end of a fiscal

period the account will probably show an over- or under-absorption actual cost. The fiscal year-end balance might conceivably be carried o to the next fiscal period, with the idea of absorbing variations of opposite kind in subsequent periods. The preferred treatment of over- underabsorbed balances appears to be to dispose of them periodically an entry such as the following:

Overhead	60	
Fund Balance		60
To transfer amount of overabsorbed overhead to Fund Balance.		

If the rate used had been so low as to lead to underabsorption, indica by a debit balance in Overhead at the end of the period, the forego entry would be reversed. After Stores has been brought into agreem with the physical inventory and Overhead closed to Fund Balance, latter account is adjusted and ready for inclusion in a balance sheet.

Detailed accounting for operating costs

Intragovernmental service funds of considerable magnitude may quire a complete set of profit and loss accounts sufficiently detailed to g adequate managerial control over fund operations. These may include c or more income accounts and as many expense accounts as seem to necessary for adequate description of operating costs.

In the paragraphs preceding the last one, the discussion related distribution of overhead when all operating expenses of a stores fund recorded in a single Overhead account. Such a problem is only a segm of the much larger issue of properly determining the amount to charged for IGS fund service, especially when operating expenses rep sent a major portion of total costs. This refers to such a situation as mig be found in a municipal garage or a governmentally owned and operat printing shop. Ordinarily, some costs of such enterprises are more or l direct, varying with the amount of service rendered and therefore iden fiable for billing purposes. On the other hand are general items such superintendence and depreciation of fixed assets used.

Two distinct methods are available in accounting for large-scale op ating costs, as follows:

1. If direct, identifiable costs constitute a substantial portion of the tc cost of the service or commodity, these may be charged to the job or ot unit by direct posting, without passing through an intermediate account. Ot costs may be applied indirectly on some standard, predetermined basis. Th the total charge to the using agency will consist partly of direct items a partly of indirect amounts. For example, repair service by a garage or ma tenance fund will consist of the actual cost of direct labor and parts or su plies used, plus some additional amount for indirect costs. This method most effective if operated through a formal job order system of cost accou ing.

2. If direct, identifiable costs constitute a minor portion of the total cost of the service or commodity, all costs, of whatever nature, may be summarized in an intermediate account or accounts and distributed to each unit of service or commodity on some standard, predetermined basis. This means that charges to using agencies will be on an average basis, with little or no reference to the actual cost of the job or other unit received. For example, under this method the use of automotive equipment will be charged to the user at a specified rate per mile or hour of use, without reference to ascertainable actual costs.

Bases for distributing indirect costs

Opinions differ as to the most acceptable plan for calculating a basis for distributing indirect costs under the first method discussed above and for distributing all costs under the second method. Three plans have been used, as follows:

1. Periodic distribution by proration of all indirect costs incurred during a relatively short period of time, such as one month. Thus, if total direct costs incurred during a given month are $20,000 and total indirect costs are $5,000, each charge to a user may consist of four fifths direct costs and one fifth indirect costs. If direct costs of materials, supplies, or services furnished to a single user amounted to $400 during a given month, the total charge to the user would be $500. All indirect costs of a given month would be fully absorbed by charges to units or agencies using the fund during that month. As in industrial cost accounting, overhead expenses of an IGS fund may be levied on a direct labor cost or direct labor hour basis, if those factors appear to give the more logical distributions.

   Objections to the actual-cost proration plan are twofold:

   a) Inconvenience. No billing for tangible goods or for services can be completed until after the end of the month in which delivery is completed. If the transaction begins in one month and ends in another, further complications arise.

   b) Inconsistency. In some months, indirect expenditures may be disproportionately large, although the cause of the expenditure, such as a major repair, may have been accruing over many past months; or the benefit of the expenditure may extend over many future months. For the total cost of such an item to be borne only by those using the fund in that particular month is inconsistent. Equally great inconsistencies occur in those months when indirect cost expenditures are abnormally low.

2. Distribution of indirect costs by the use of a predetermined rate based upon some short period of time, such as a month. This method avoids one result of the actual proration method, that is, delay in billing until the end of a month. However, it is open to the objection that rates based on short periods are likely to be inconsistent because of temporal fluctuations in the amounts expended for indirect costs. This means that departments or agencies receiving service in months when overhead expenditures are unusually large will bear more than a fair share of their burden. The reverse situation occurs in months when overhead expenditures are light.
3. Distribution of indirect costs by the use of a predetermined rate based upon a longer period of time. This method permits prompt billing to using agen-

cies and may be expected to give a fairer distribution, since indirect costs are likely to be more uniform year by year than month by month.

Use of a predetermined rate, regardless of the base period, will certainly lead to over- or underabsorbed balances at the ends of fiscal periods. As suggested elsewhere, these balances may be closed out to a fund capital account or may be forwarded to the next year, to be absorbed along with the expenditures pertaining to that year. Unless the balance is unusually large, the former procedure is probably the more satisfactory. If the balance, whether debit or credit, is unusually large, that fact would seem to call for substantial revision of the rate to be used in the next period, regardless of whether the said balance is closed to fund balance or recorded as a deferred cost to be carried to the following year's operations.

Illustration 9–2

CITY OF AUSTIN

Garage Service Fund
After-Closing Trial Balance
April 30, 1968

	Debit	*Credit*
Cash (overdraft)		$ 150
Due from general fund	$ 1,300	
Accounts receivable	300	
Parts and supplies inventory	6,000	
Machinery and equipment	25,000	
Allowance for depreciation—machinery and equipment		5,000
Buildings	15,000	
Allowance for depreciation—buildings		2,000
Land	1,500	
Due to electric utility fund		100
Vouchers payable		1,740
Contribution from general fund		40,000
Retained earnings		110
	$49,100	$49,100

Intragovernmental service fund entries and statements

Most IGS funds require balance sheets, and those of any considerable magnitude also should have operating statements and statements of changes in retained earnings. Transactions, entries (in general journal form), and statements of an IGS fund of the service type will be presented to illustrate basic accounting for such a fund.

An after-closing trial balance is presented in Illustration 9–2.

Summary transactions for the next year and entries therefor were as follows:

1. Due from General Fund	49,000	
Due from Street Fund	7,000	
Billings to Departments		56,000

To record $49,000 of services rendered to general fund and $7,000 to street fund.

2. Accounts Receivable	700	
Miscellaneous Charges (or other revenue account)		700

To record $700 of services rendered to nongovernmental agencies.

3. Parts and Supplies Inventory	30,000	
Vouchers Payable		30,000

To record purchase of parts and supplies.

(NOTE: If encumbrances were used by the working capital fund, the standard encumbrance entries would have been made when purchase orders were issued and the necessary reversal entries made when orders were filled with liabilities recorded. To save space in this example, encumbrances will not be recognized.)

4. Direct Labor	16,000	
Cash		16,000

To record amount paid for direct labor during the year

5. Power and Light	1,800	
Due to Electric Utility Fund		1,800

To record bills for electric current received during the year

6. Salaries	4,500	
Cash		4,500

To record payment of compensation to employees not engaged in direct labor.

7. Office Expense	900	
Cash		900

To record office expense paid in cash.

8. Vouchers Payable	31,000	
Cash		31,000

To record amount of vouchers paid during the year.

9. Cash	55,800	
Due from General Fund		49,200
Due from Street Fund		6,600

To record receipt of cash from the general and street funds.

10. Cash	600	
Accounts Receivable		600

To record collections on amounts due from nongovernmental sources.

11. Retained Earnings	65	
Accounts Receivable		65

To write off account deemed uncollectible, on proper authorization.

(NOTE: Because of the relatively small amount of accounts receivable, the fund does not set up an allowance for estimated losses.)

12. Due to Electric Utility Fund	1,300	
Cash		1,300
To record payments on electric bills.		
13. Miscellaneous Expense	110	
Cash		110
To record payment of miscellaneous expenses not otherwise classified.		
14. Parts and Supplies Used	31,000	
Parts and Supplies Inventory		31,000
To record total of stores requisitions for the year.		
15. Power	1,640	
Miscellaneous Expense	160	
Power and Light		1,800
To reclassify electric current charges, based on meter records, between direct and indirect costs.		
16. Depreciation—Machinery and Equipment	2,500	
Depreciation—Buildings	450	
Allowance for Depreciation—Machinery and Equipment		2,500
Allowance for Depreciation—Buildings		450
To record depreciation of machinery and equipment at 10 percent per annum on cost, and of buildings at 3 percent per annum on cost.		
17. Parts and Supplies Used	150	
Parts and Supplies Inventory		150
To adjust latter account to agree with physical inventory of parts and supplies at April 30, 1969.		

(NOTE: Entries 15, 16, and 17 are essentially adjusting entries.)

Illustration 9–3 presents the trial balance at April 30, 1969; Illustration 9–4, the balance sheet at the same date; and Illustration 9–5, the statement of operations for the fiscal year 1969.

Although not of vital importance, a statement of changes in retained earnings may be of interest to IGS fund management. In form, the statement is not unlike that of the comparable statement found in commercial accounting practice (see Illustration 9–6).

If any reason existed for detailing the cost of parts and supplies consumed in the year's operations, the information could be provided in a statement similar to the cost of goods sold or cost of goods used in a mercantile or manufacturing enterprise. Such a section, using city of Austin figures, would appear as follows:

Cost of parts and supplies used:	
Inventory, April 30, 1968	$ 6,000
Purchases	30,000
Cost of Parts and Supplies Available	36,000
Less: Inventory, April 30, 1969	4,850
Cost of Parts and Supplies Used	$31,150

Illustration 9–3

CITY OF AUSTIN

Garage Service Fund
Trial Balance, April 30, 1969

	Debit	Credit
Cash	$ 2,440	
Due from general fund	1,100	
Due from street fund	400	
Accounts receivable	335	
Parts and supplies inventory	4,850	
Machinery and equipment	25,000	
Allowance for depreciation—machinery and equipment		$ 7,500
Buildings	15,000	
Allowance for depreciation—buildings		2,450
Land	1,500	
Due to electric utility fund		600
Vouchers payable		740
Contribution from general fund		40,000
Retained earnings		45
Billings to departments		56,000
Miscellaneous charges		700
Parts and supplies used	31,150	
Direct labor	16,000	
Power	1,640	
Depreciation—machinery and equipment	2,500	
Salaries	4,500	
Depreciation—buildings	450	
Office expense	900	
Miscellaneous expense	270	
	$108,035	$108,035

Freight charges and returns and allowances could be added to the statement, the information being available and of concern to management of the fund.

The statement of changes in retained earnings for the city of Austin's garage service fund for fiscal 1969 is very simple, as shown in Illustration 9–6.

Closing entries

Closing entries have been postponed till last, only to permit a continuous presentation of intragovernmental service fund financial statements. There might be reason for making these entries at an earlier stage, particularly before preparation of a balance sheet.

This group of entries may be made in any of the ways available for doing similar entries for a commercial enterprise. This includes journalizing and closing according to the sections of the operating statement, journalizing all debits and credits in one compound entry, and removal of the sheets for nominal accounts from the ledger, with a debit or credit to Retained Earnings for the net loss or net gain. For present purposes, to show an array of the accounts closed, the second method will be used.

Illustration 9–4

CITY OF AUSTIN

Garage Service Fund
Balance Sheet, April 30, 1969

Assets

Current Assets:		
Cash	$ 2,440	
Due from general fund	1,100	
Due from street fund	400	
Accounts receivable	335	
Parts and supplies inventory	4,850	
Total Current Assets		$ 9,125
Fixed Assets:		
Machinery and equipment	$25,000	
Less: Allowance for depreciation	7,500	$17,500
Buildings	$15,000	
Less: Allowance for depreciation	2,450	12,550
Land		1,500
Total Fixed Assets		$31,550
Total Assets		$40,675

Liabilities, Contributions, and Retained Earnings

Liabilities:		
Due to electric utility fund		$ 600
Vouchers payable		740
Total Liabilities		$ 1,340
Contributions and retained earnings:		
Contribution from general fund	$40,000	
Retained earnings (deficit)	*(665)*	
Total Contributions and Retained Earnings		39,335
Total Liabilities, Contributions, and Retained Earnings		$40,675

Illustration 9–5

CITY OF AUSTIN

Garage Service Fund
Statement of Operations for Fiscal Year Ended April 30, 1969

Billings:		
Billings to departments	$56,000	
Miscellaneous charges	700	
Total billings		$56,700
Direct costs:		
Parts and supplies used	$31,150	
Direct labor	16,000	
Power	1,640	
Depreciation—machinery and equipment	2,500	
Total direct costs		51,290
Excess of Billings over Direct Costs		$ 5,410
Indirect costs:		
Salaries	$ 4,500	
Depreciation—buildings	450	
Office expense	900	
Miscellaneous expense	270	
Total indirect costs		6,120
Excess of Costs over Billings (Loss)		$ (710)

Illustration 9-6

CITY OF AUSTIN

Garage Service Fund
Statement of Changes in Retained Earnings
Fiscal Year Ended April 30, 1969

Balance, April 30, 1968		$110
Deduct: Excess of costs over billings,		
year ended April 30, 1969	$710	
Accounts receivable charged off	65	
Total Deductions		775
Balance, (deficit) April 30, 1969		($665)

Illustration 9-7

CITY OF AUSTIN

Garage Service Fund
Closing Entries, April 30, 1969

Retained Earnings	710	
Billings to Departments	56,000	
Miscellaneous Charges	700	
Parts and Supplies Used		31,150
Direct Labor		16,000
Power		1,640
Depreciation—Machinery and Equipment		2,500
Salaries		4,500
Depreciation—Buildings		450
Office Expense		900
Miscellaneous Expense		270
To close temporary accounts and transfer excess of costs over billings to Retained Earnings.		

Due to the variety of uses made of IGS funds it is not possible, in a short space, to even mention the variations found in their closing entries. For the accountant, the only dependable procedure is to keep in mind the purposes of closing entries and to make those required to accomplish their purpose as related to the fund with which he is working.

Dissolution of an intragovernmental service fund

When an IGS fund has completed the mission for which it was established, or when its activity is terminated for any other reason, dissolution must be accomplished. Liquidation may be accomplished in any one of three ways or in combinations thereof. The three ways are: (1) transfer fund assets to another fund which will continue the operation as a subsidiary activity, e.g., a supply fund becoming a *department* of the general fund; (2) distribute its assets in kind to another fund or other funds; (3) convert all noncash assets to cash and distribute the cash to another fund or other funds. Dissolution of an IGS fund, as for a private enter-

prise, would proceed by prior payments to outside creditors, followed by repayment of long-term advances not previously amortized and, finally, liquidation of net worth. The entire process of dissolution should be conducted according to pertinent law and the discretion of the appropriate legislative body. Fund capital contributed by another fund logically would revert to the contributor fund, but law or other regulations may dictate otherwise. If fund capital has been built up out of charges in excess of costs, then liquidation will follow whatever regulations may govern the case; and if none exist, then the appropriate governing body must decide upon the recipient or recipients.

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QUESTIONS

1. What is the difference between a general fund and an equipment-operating or servicing IGS fund which accounts for absence of a fixed asset classification from balance sheets of the former and their presence in balance sheets of the latter?
2. A municipality conducts a manufacturing operation which has counterparts in private business. Much administrative and general service of the fund is provided by the general fund without cost to, or accounting by, the IGS fund. What is your opinion of the soundness of this policy?
3. In a recent year the stores and duplicating fund of a large city provided supplies and duplicating service to other funds which were charged to them in the total amount of $473,020. The fund is of the intradepartmental service type and is fully self-supporting. The same year its operating statement showed a net loss of $426. Based on those facts, was the fund, in your opinion, well managed?
4. A governmental unit provided original financing for its materials and supplies IGS fund by transfer of $30,000 cash from its general fund. The transferee fund credited the amount to Advance from General Fund. When savings of a sufficient amount had been accumulated, the $30,000

was repaid. Give the journal entry or entries, without explanation, for each fund, to record the repayment.

5. What is the proper balance sheet classification of Long-Term Advance from General Fund?
6. A municipal purchasing fund follows the policy of charging all departments substantially more than the sum of actual cost and normal overhead for materials and supplies bought for them. Annually an amount of cash equal to the net gain by that method is transferred to the library fund. Comment on the merits or demerits of that procedure.
7. Explain the widespread practice of omitting budgetary accounting from IGS fund accounting procedures.
8. The National Committee on Governmental Accounting recommends use of "Retained Earnings" for the name of the difference between assets and liabilities and reserves, of an intradepartmental service fund. Are there any types or kinds of IGS funds for which that title is less appropriate than "Fund Balance"?
9. What reason can you give for including fixed asset accounts in the financial structure of an IGS fund if relatively large amounts of such assets are employed in the fund's normal operations?
10. What methods are available for disposing of over- or underabsorbed overhead of an IGS fund?

PROBLEMS

1. In the State of X, the state garage intragovernmental service fund provides automotive service for all departments and agencies of the state government. Direct costs of operating the equipment (gasoline, depreciation, repairs, etc.) are charged to the specific auto to which the cost item applies, but general expenses (overhead) are charged at a predetermined estimated rate per 100 miles traveled. The amounts of the various kinds of indirect expenses for 1968, with the estimated rates or amounts of change in 1969, are shown in the following table:

Name of Cost or Expense	*1968 Amount*	*Estimated Increase, 1969*
Clerical salaries	$ 4,200	10%
Depreciation—garage equipment	1,600	$210
Foremen's salaries	12,000	15%
Garage rent	2,400	$180
Helpers' wages	10,800	10%
Office expense	400	$100
Utilities	1,080	$ 60*

* Decrease.

Estimated usage of automobiles in 1969 by the various departments and funds is as follows in terms of miles:

General revenue fund:	
Governor's office	90,000
Treasurer	20,000
Secretary of state	20,000
Attorney general	15,000
Department of audits	320,000
Highway fund	510,000
Welfare fund	380,000
Public employees' retirement fund	110,000

You are required to do the following things:

a) Calculate a single rate per 100 miles for overhead, based upon estimated costs and mileage for 1969. Carry rate to tenths of a cent.

b) If there were unabsorbed overhead costs of $2,000 for 1968, state what should be done to absorb the amount in 1969.

c) Based upon the estimated rate for 1969 and estimated mileage, state what would be the total amount of overhead to be charged to the highway fund for 1969.

2. Prairie City operates an insurance fund of the intragovernmental service type. The fund manages and finances the various kinds of insurance carried by the city. It pays all premiums to the insurers, then as premiums expire, they are charged to the specific funds to which they pertain. All costs—personnel, utilities, etc.—of operating the insurance fund are borne by the general fund. At April 30, 1968, the trial balance of the Insurance Fund was as follows:

	Debit	*Credit*
Cash with city treasurer	$ 39,863	
Prepaid insurance premiums	204,722	
Vouchers payable		$114,585
Contribution from general fund		105,000
Contribution from water fund		25,000
	$244,585	$244,585

During the year ended April 30, 1969, the following transactions, in summary form, occurred:

(1) The fund was billed by insurance companies for $141,650 premiums falling due on insurance coverage for the various funds of the city.

(2) A total of $161,759 was charged to various funds on account of premiums which expired during the year (credit Prepaid Insurance Premiums).

(3) A total of $9,473 was received from insurance companies as premium adjustments during the year. This was credited to the amount owed by various funds for current year's expirations.

(4) $136,905 was paid on amounts owed to insurance companies, for the benefit of Prairie City funds and agencies.

(5) Additional financing for the fund was received in the form of an $80,000 contribution of cash by the general fund.

(6) $152,286 was collected on the amount of expirations charged to the various funds.

You are required to do the following things:

a) Copy the April 30, 1968, trial balance on columnar paper.

b) Record the summary transactions for fiscal 1969 and obtain a trial balance for April 30, 1969.

c) Prepare a balance sheet for April 30, 1969.

d) Prepare a statement of cash receipts and disbursements for fiscal 1969.

e) In the foregoing problem representing an actual fund, there are no transactions related to settlement of losses. State the reason why.

f) The fund does not have an account in the nature of excess of revenue over expenditures, retained earnings, surplus, or whatever it might be called. State why not.

g) The fund illustrated in this problem is similar to an agency fund. State what you perceive to be its distinguishing difference from a true agency fund.

h) State what you consider to be the justification for operation of a separate fund for accounting for insurance premium payments and expirations.

3. At December 31, 1968, the central purchasing fund, city of Chalmers, had the following trial balance:

	Debit	*Credit*
Cash	$ 3,080	
Stores	41,300	
Due from other funds	5,050	
Equipment	6,940	
Allowance for depreciation—equipment		$ 2,130
Vouchers payable		7,010
Advance from general fund		47,040
Encumbrances	8,600	
Reserve for encumbrances		8,600
Fund balance		190
	$64,970	$64,970

The following transactions occurred:

(1) During 1969, purchase orders for stores totaling $591,000 were issued by the fund.

(2) Purchase orders totaling $588,000 were filled at an invoiced total cost of $589,600 and vouchers were prepared in that amount.

(3) Total cash costs of overhead (debit Overhead) were vouchered in the amount of $27,875.

(4) Stores having a computed cost of $579,300 were issued to other funds. To this was added a 5 percent charge to accomplish an absorption of overhead.

(5) Vouchers liquidated during the year amounted to $616,800. Of this reduction, $6,030 was for cash discounts earned. Of that amount, $5,920 applied to vouchers for stores and the balance to vouchers for overhead charges.

(6) An employee was detected in the act of pilfering stores. An inventory of stores following the incident revealed a physical inventory total which was $900 less than the book inventory (Stores) balance. The former employee's bonding company made full restitution in cash for the $900 difference.

(7) Stores of a recorded cost of $580 were consumed in the normal operations of the fund.

(8) $609,230 was received through cash transfers from other funds.

(9) Depreciation of equipment was recorded at 10 percent of cost of equipment.

You are required to do the following things:

a) Open ledger accounts for the central purchasing fund at December 31, 1968.

b) Record by direct posting or by journal entries and posting such of the above statements as require entries. Credit Stores and Overhead accounts for charges to other funds.

c) Prepare a trial balance after transaction 9.

d) Make the necessary adjusting and closing entries or entry for the end of the year. No over- or underabsorbed overhead is to be carried forward. A physical inventory of stores (at cost) on December 31, 1969, showed a total of $43,950. Posting is not required.

4. At June 30, 1968, the automotive service fund of Superior City had the following trial balance after closing:

	Debit	*Credit*
Cash on hand and in bank	$ 1,100	
Due from street fund	2,020	
Accounts receivable	340	
Services supplies inventory	7,060	
Machinery and equipment	30,000	
Allowance for depreciation—machinery and equipment		$11,000
Buildings	21,000	
Allowance for depreciation—buildings		7,000
Land	3,700	
Taxes withheld		860
Due to utility fund		80
Accounts payable		2,170
Advance from general fund		45,000
Fund balance	890	
	$66,110	$66,110

During the next fiscal year the following transactions (summarized) occurred:

(1) Operating employees were paid $29,000 wages in cash, and additional wages of $3,200 were withheld for taxes.

(2) Salaries paid in cash during the year amounted to $9,000. An additional amount of $1,800 was withheld for taxes.

(3) Cash remitted during the year for taxes withheld amounted to $4,600.

(4) Utility bills received during the year amounted to $2,350 (debit Utility Services).

(5) Office expense paid in cash during the year amounted to $1,050.

(6) Service supplies purchased on account during the year totaled $37,500.

(7) Parts and supplies used during the year totaled $38,110 (at cost).

(8) Charges to departments during the fiscal year were as follows:

General fund	$44,500
Street fund	42,000
Nongovernmental agencies	1,200

(9) During the year an old account receivable of $75 was authorized to be written off because the debtor agency denied the validity of the charge.

(10) Unpaid balances at June 30, 1969, were as follows:

General fund	$2,100
Street fund	1,830
Nongovernmental agencies	425

By the general fund:

On account of vouchers payable	$285,345
On account of indebtedness to stores and services fund	18,910

By the stores and services fund:

On account of vouchers payable	25,728

By the water fund:

On account of indebtedness for stores	4,732

You are required to do the following:

a) Record the trial balances of both funds at April 30, 1969.

b) Record May transactions.

c) Prepare fund trial balances for May 31.

The above requirements may be accomplished either by ledger accounts and journal entries or by the use of worksheets.

6. The city of K has a public improvement intragovernmental service fund which provides temporary financing for various kinds of public improvements, after which it receives reimbursement from the fund which is primarily responsible for the improvement, principally special assessment and capital projects funds. At April 30, 1968, the public improvement service fund had the following trial balance:

	Debit	*Credit*
Equity in city treasurer's funds	$ 234,407	
U.S. government securities	868,130	
Special tax bills, certificates, and assessments receivable	972,671	
Allowance for estimated losses—special tax bills, certificates, etc.		$ 75,000
Unbilled improvements	150,188	
Allowance for losses—unbilled improvements		12,628
Warrants payable		15,376
Vouchers payable		3,622
Due to other funds		474
Contributions from general fund		1,892,229
Retained earnings		226,067
	$2,225,396	$2,225,396

Authorized Improvements and Appropriations are only memorandum accounts recording the amount of construction authorized to be financed. As additional construction is authorized the two accounts are increased, and as construction expenditures are made they are decreased. Omit entries.

During the year ended April 30, 1969, the fund engaged in the following transactions stated in summary form:

(1) Interest collections were as follows:

Interest on investments	$32,895
Interest on receivables	33,948

(2) Construction outlay credited to vouchers payable during the year amounted to $861,038, which was charged directly to Unbilled Improvements account.

(3) $3,376,159 of vouchers payable were prepared for purchase of U.S. government securities.
(4) $1,477 was received from tax bills, assessments, etc., which had been written off in prior years.
(5) $859,004 of unbilled improvement costs were transferred to the general receivables account (Special Tax Bills, etc.).
(6) A contribution of $400,000 was received from the Revolving Public Improvement Bond Fund.
(7) Normal collections on special tax bills, etc., amounted to $813,375.
(8) $893 bond issue expense which pertained to a prior year and for which this fund was responsible was paid in cash by transfer, without vouchering.
(9) U.S. government securities were sold for $3,422,104, at no gain or loss.
(10) $1,233 cash was refunded to property owners on assessments receivable levied and collected in error. The amount was debited to Special Tax Bills, etc., and then written off against the allowance for losses.
(11) A voucher was prepared for repayment of $500,000 of the general fund contribution.
(12) Vouchers payable totaling $4,735,829 were certified as eligible for payment during fiscal 1969 and payment warrants of that total amount were issued to the treasurer (credit Warrants Payable).
(13) Additional provision of $8,158 was made for losses on Special Tax Bills, etc.
(14) Correction was made for overprovision last year on a condemnation award which had been credited to Vouchers Payable but not yet paid. The amount was $494.
(15) Warrants countersigned and issued by the treasurer to creditors of the fund totaled $4,731,189.
(16) $7,082 was received on account of recoveries on unbilled improvements which had been written off in prior years.
(17) It was discovered that of the amount transferred from Unbilled Improvements to assessment receivable (Special Tax Bills, etc.), there was an excess amount of $1,888 over and above the actual amount which had been charged into unbilled improvements.

You are required to do the following things:

a) Record the balances of the accounts at April 30, 1968.

b) Record the transactions for fiscal year 1969. (Transactions may be recorded by journal entries and posted, or the requirements may be met by use of a worksheet. If a worksheet is employed, the following accounts should have the number of spaces indicated: Equity in City Treasurer's Fund, seven; Special Tax Bills, Unbilled Improvements, and Wants Payable, three each; Vouchers Payable, four.

c) Take a trial balance of the fund's accounts at April 30, 1969.

d) Prepare a closing entry or closing entries. Posting is not required.

e) Prepare statements or a columnar statement of changes in contributions from general fund, from revolving public improvement bond fund, and in retained earnings for the year ended April 30, 1969.
(Because of the unusual nature of several transactions, it will be necessary to employ some new account titles. These may be patterned closely after the wording of the transaction, as Collection of Tax Bills Written Off in Prior Years, Correction of Overprovision on Condemnation Award, Recovery of Unbilled Improvements Written Off, and so on.)

f) State how this fund qualifies as an intragovernmental service fund.

. At December 31, 1968, the after-closing trial balance of X State Highway Department's highway garage fund was as follows:

	Debit	Credit
Cash with state treasurer	$ 351,450	
Due from other funds	120,620	
Parts—active	90,160	
Supplies—active	78,026	
Spare motors	5,055	
Parts—obsolete	8,676	
Supplies—obsolete	96	
Allowance for obsolete parts and supplies		$ 8,772
Gas, oil, and grease	2,392	
Machinery and equipment	3,329,527	
Allowance for depreciation		1,856,037
Buildings	495,866	
Allowance for depreciation		202,144
Shop and office equipment	52,017	
Allowance for depreciation		22,231
Land	26,156	
Accounts payable		84,413
Accrued payroll and expenses		8,681
Contribution from general fund		1,228,162
Retained earnings		1,149,601
	$4,560,041	$4,560,041

During 1969 the following transactions were consummated by the fund:

(1) Machinery and Equipment Rentals was credited during the year with $1,184,474 sales of parts and supplies totaled $205,776; and sales of service amounted t $147,136—all charged to other funds.
(2) Building rental of $5,944 was received in cash.
(3) Parts purchases during the year totaled $95,128, and supplies purchases amounte to $67,403, all on account.
(4) Gas, oil, and grease were purchased on account in the amount of $237,056.
(5) Cash payments for expenses during the year were as follows: operating overhea $183,742; outside repairs (done by private garages), $43,577; labor, $257,917. I addition, the accrued payroll and expenses at December 31, 1968, were paid. (Con bine in one entry.)
(6) Machinery and equipment which had cost $394,920, and on which $378,976 d preciation had been recorded, was traded for $261,990 of new machinery, with cash difference of $233,494 being paid. Record gain in Gain on Trade of Machiner
(7) Junk, consisting of worn out parts, scrap, etc., on which no cost value was carrie was sold for $517 cash.
(8) Purchases of machinery, and shop and office equipment, for cash, during 19 amounted to $428,191 and $3,059, respectively.
(9) Payments on accounts payable totaled $462,027.
(10) Cash in the amount of $1,555,420 was received from other funds during 1969.
(11) December 31, 1969, inventories of operating supplies were as follows:

Parts—active	$90,748
Supplies—active	53,327
Gas, oil, and grease	2,846

Record operating supplies usage in Parts and Supplies Used and Gas, Oil, a Grease Used.
(12) Sales of service were intended to be at cost, composed of labor and overhead. Usi amounts based upon a predetermined ratio, $136,837 of labor and $10,299 operating overhead were transferred to Cost of Services Sold.
(13) Depreciation charged for the year was as follows:

Machinery and equipment	$374,438
Buildings	11,665
Shop and office equipment	5,181

The first item was recorded in a depreciation account and the last two in the general account, Operating Overhead.

(14) Labor costs accrued but unpaid at December 31, 1969, totaled $6,410, and unpaid outside repairs (expense) amounted to $1,605.

(15) No changes were recorded in Spare Motors, Parts—Obsolete, and Supplies—Obsolete during 1969.

You are required to do the following things:

a) Copy the trial balance on columnar paper. On the columnar paper, Cash should be allowed four lines; Machinery and Equipment, two lines; and Accounts Payable, two lines. When new accounts are added, Operating Overhead, Outside Repairs, and Labor accounts should each be allowed two lines.

b) Journalize the entries for 1969 and post them to the worksheet, or post directly from the transactions to the worksheet.

c) Transfer new balances of the accounts to an adjusted trial balance pair of columns, or directly to income and expense and balance sheet columns, and formally close and rule the worksheet columns.

Two Optional Additional Assignments

a) Prepare an income and expense statement for the fund for 1969.

b) Prepare a balance sheet for the fund for December 31, 1969.

8. On January 1, 1969, Medium City established an intragovernmental service fund for operating a central motor vehicle pool. It transferred $100,000 from the general fund.

Immediately upon establishment, a fleet of trucks was purchased, as follows:

Type	*Number*	*Cost per Truck*
4-ton GMC	4	$3,500
3-ton Ford	4	2,500
3-ton Mack	4	2,200
1-ton Dodge	5	1,500

Operating each of the three- and four-ton trucks requires a driver and a helper, who are paid standard rates of $2.00 and $1.50 per hour, respectively. The one-ton trucks do not require a helper.

All trucks are depreciated on a straight-line basis over a 5-year period, with 5 percent residual salvage value.

Trucks are rented to the general fund on an hourly basis, and the following usage and gasoline costs were reported for the year ended December 31, 1969:

Type	*Rental Rate per Hour*	*Total Number of Hours Used*	*Cost of Gasoline Used*
4-ton GMC	$5.50	6,000	$2,400
3-ton Ford	5.00	8,000	2,400
3-ton Mack	5.00	8,000	2,800
1-ton Dodge	3.00	15,000	3,000

The following additional costs were incurred in operation of the fleet:

(1) Drivers' and helpers' wages were paid for exactly the hours the trucks were used. There was no unpaid payroll at the end of the year.
(2) Unpaid gasoline invoices at December 31, 1969, aggregated $1,500.
(3) Other indirect costs incurred were as follows:

Supervision	$15,000
Repairs	10,000
Tires and tubes purchased	1,600

There were no unpaid bills at December 31, 1969, pertaining to the abo items; however, at the end of the year the fund had on hand an invento of new tires costing $500.

During the year the general fund paid the motor vehicle pool $95,000 on its account for service rendered.

a) You are to prepare the journal entries to open the fund, to record the transactions in it for 1969, and to close the fund at December 31.

b) Prepare a balance sheet in good form for the fund as of December 31, 1969. (A worksheet is *not acceptable* in meeting this requirement. It is suggested that the statement be prepared from the entries and the use of skeleton T accounts.)

(AICPA, adapted)

9. From the following information concerning the city of Langdon, you are to prepare as of December 31, 1969:
   a) A worksheet reflecting the transactions, closing entries, and balance sheet for its general fund.
   b) A statement of operations for its maintenance service fund.
   c) A balance sheet for its maintenance service fund.

   The accounts of the general fund as of January 1, 1969, were as follows:

Cash	$1,000
Taxes receivable—delinquent	8,000
Accounts payable	7,000
Reserve for encumbrances	1,500
Retained earnings	500

The following transactions for the current year are to be considered:

(1) The budget which was adopted for 1969 provided for taxes of $275,000, special assessments of $100,000, fees of $15,000, and license revenues of $10,000. Appropriations were $290,000 for general fund operations and $100,000 for the purpose of establishing a maintenance service fund.
(2) All taxes and special assessments became receivable.
(3) Cash receipts for the general fund included:

Taxes for 1969	$260,000
Special assessments	100,000
Fees	16,000
Licenses	9,500
Taxes receivable—delinquent, plus interest of $500. Tax liens were obtained on the remainder of the delinquent taxes	5,500

(4) Contracts amounting to $75,000 were let by the general fund.
(5) Services rendered by the maintenance service fund to other departments included: general fund, $40,000; utility fund, $20,000, of which $5,000 remained uncollected at the end of the year.
(6) The following cash disbursements were made by the general fund:

Maintenance service fund	$100,000
Accounts payable of the preceding year	7,000
Outstanding orders at beginning of year were all received and paid for	2,000
Expenses of fund incurred during year	145,000
Stores purchased for central storeroom established during year	5,000
Contracts let during year	30,000
Permanent advance to newly created petty cash fund	1,000
Services performed by maintenance service fund	35,000
Salaries paid during year	30,000

(7) The following cash disbursements were made by the maintenance service fund:

Purchase of equipment (estimated useful life 10 years)	$60,000
Purchase of materials and supplies, of which one fifth remained at end of year	40,000
Salaries and wages, as follows:	
Direct labor	9,000
Office salaries	2,000
Superintendent's salary	4,000
Heat, light, and power	2,000
Office expenses	500

(8) All unpaid taxes become delinquent.
(9) Stores inventory in general fund amounted to $2,000 on December 31, 1969.

(AICPA, adapted)

CONTINUOUS PROBLEM

9–L. The city of Bingham established a Stores and Services Fund to be operated as an intragovernmental service fund to improve purchasing procedures and facilitate inventory management.

You are required to:

a) Open a general journal for the Stores and Services Fund; enter the following transactions, in accord with preferred intragovernmental service fund practices. All transactions are for the first month of operations of this fund.
   (1) The advance was received from the General Fund [see transaction 13 of part (*d*), Problem 5–L].
   (2) Purchase orders were issued in the amount of $15,000.
   (3) Warehouse and office space was not available in city-owned buildings; space was rented in a privately owned building for $200 a month. Six months' rent was paid in advance.
   (4) A cash expense budget was prepared by the City Controller for this new fund. In addition to rent, the estimated expenses were $480 a year for utilities ($120 for water, a city-owned utility; $100 for a telephone; $200 for electricity; and $60 for gas—all privately owned utilities); $9,600 for salaries; and $260 a year for operation and maintenance of warehouse equipment. (The warehouse equipment was in the basement of City Hall; nobody was quite clear as to when it had been purchased, for what purpose, by whom, or how much it had cost. It was usable, however, and when it was cleaned and

minor repairs were made by the Department of Public Works employ... the equipment was turned over to the Stores and Service Fund. The con... troller estimated that new equipment would have cost $6,000; the estimate... remaining useful life of the existing equipment was 10 years, or, about tw... thirds as long as new equipment would have been expected to last.)

(5) In order to put the Stores and Services Fund on a completely self-sustainin... basis it was decided to charge using departments for the stores plus a mark-u... sufficient to recover expected cash expenses plus depreciation of equipment... Stores issues for one year were forecast to be $100,000, at cost. Comput... the mark-up rate.

(6) Invoices for stores received were approved for payment in the amount c... $10,145; applicable purchase orders totaled $10,085.

(7) Vouchers outstanding were paid, as was payroll totaling $800.

(8) Purchase orders were issued in the amount of $8,600.

(9) Invoices were approved for payment; $10, water; $5, gas; $8, telephone... $20, electricity; and $8,000, stores (applicable purchase orders for store... totaled $8,020).

(10) Stores costing $12,000 were issued to the General Fund; an interfund ir... voice in the proper amount was prepared.

(11) Vouchers outstanding were paid.

(12) The Stores and Services Fund used stores of its own which had cost $10...

(13) Adjusting and closing entries were recorded as of the end of the first mont... of operations.

b) Prepare a balance sheet for this fund as of the end of the month.

c) Prepare a statement of operations of this fund for this month.

Chapter 10

Special Assessment Funds

Special assessment funds, or local improvement funds, as they are sometimes called, are established and operated to provide services that are of demonstrably greater benefit to a certain group of citizens than to others. More often, these services consist of providing permanent improvements of one kind or another; but they may be of current nature, such as street lighting, maintenance of parking areas, and maintenance of drainage ditches.[1] Funds for the latter type of services are comparable to special revenue funds, with assessments payable in one or two amounts; but they are in the nature of special assessments because the amounts of the assessments tend to vary directly in proportion to the amount of benefit received. Capital improvement projects commonly financed through the medium of special assessment funds include construction of streets, sidewalks, curbs, gutters, sewer systems, drainage ditches, etc. By way of contrast with special assessment projects are those construed to be of benefit to the citizens generally, such as construction of public buildings, the cost thereof to be spread among all property owners within the unit's jurisdiction. Although the greater portion of special assessment project costs are borne by a group of specially benefited owners, the project may have some value to the general public, in which case a "contribution" may be levied against the general government, so that all taxpayers of the unit will share to a degree in the cost. Furthermore, as owner of property within the area in which the improvement is to be made, the governmental unit itself may be assessed in the same manner and on the same basis as private owners.

Owing to the extensive use of special assessments for obtaining local improvements, the need for protecting property owners from capricious and arbitrary levies, and the great amount of detail involved in accounting for projects of any size, most states have enacted comprehensive legisla-

[1] Special assessments are sometimes accounted for in a general fund or special revenue fund. This practice should be employed only for small projects. Special assessment funds providing service may operate on a continuing basis, as a general fund, and have a fund balance.

tion governing the operation and record keeping of special assessme funds. Local ordinances established under authority of the state legislati set forth the detailed provisions of each special assessment, so spec assessment fund accounting must conform to local regulations as well as the more general law of the state. Among the most important points to covered by special assessment regulations, including both state and loc are these:

1. The method of organizing projects and obtaining authorization for the Authorization refers particularly to approval by those against whose pro erties the assessments will be levied.
2. How projects may be financed, with special reference to financing wh assessments are in the process of collection.
3. Methods of distributing the cost of projects among the benefited proper owners, supplemented by procedures for considering grievances.
4. The plan of collections, including the foreclosure procedure to be follow if other methods prove unsuccessful.

In special assessment accounting procedure, it is customary practice use the words "Special Assessment" jointly in account titles referring assessments, e.g., Special Assessments Receivable and Special Assessme Liens. To economize on time and space in this chapter, the word "Sp cial" will be omitted from all such titles. It should be understood that tl omission in no way alters the meaning of the title in which it occurs.

Changes in recommendations by National Committee on Governmen Accounting

Changes in state laws, local ordinances, and opinions espoused l professional accounting organizations are responsible for variations ai changes in accounting practices recommended for special assessment fu accounting. Recommendations of the National Committee on Gover mental Accounting are probably the most influential of all, so it is wort while to note some of the changes embodied in the committee's 1968 *Go ernmental Accounting, Auditing, and Financial Reporting* and the pred cessor publication, *Municipal Accounting and Auditing.* What appear be the most notable changes in recommendations are listed on page 26 Since it is likely that not all governmental units operating special asse ment projects will convert immediately to the 1968 recommendatio even if state laws and local ordinances permit, discussion and illustrati of special assessment fund accounting in the remainder of this chapter w endeavor to give some attention to both the present and the earli recommendations.

General plan of operation

The most common tangible basis for initiating special assessment pro ects is a petition by persons desiring some kind of permanent impro

Transaction or Situation	*Recommendation* 1951	*Recommendation* 1968
Formal authorization of project.	Debit Improvements Authorized; credit Appropriations.	No entry in ledger accounts.
Levy of assessments against property owners.	Debit Special Assessments Receivable; credit Improvements Authorized.	Debit Special Assessments Receivable; credit Fund Balance.
Authorization to issue bonds.	Memorandum entry: debit Unissued Bonds; credit Bonds Eligible to be Sold.	No entry in ledger accounts.
Accounting for cash designated for different purposes (construction, bond payment, etc).	Use a separate cash account for each different purpose (Cash for Construction, etc.).	No separation of cash in ledger accounts.
Accounting for excess or deficiency of assets for various purposes (construction, bond payment, etc.).	Use a separate equity account for each purpose group (Unappropriated Surplus—Construction; Unappropriated Surplus—Bond Payment. etc.).	Combine all equity items in Fund Balance account.

ment of a public nature. Sometimes the petitioners may contemplate the financing of the project by the general government. If the major benefits expected to be derived are largely centered in one locality, the petition should be converted to the exact form prescribed by law for special assessment projects. A highly significant event in the project's progress is the formal authorization by the appropriate legislative body, frequently what is called the "board of works." No ledger entry is mandatory for recording the project's final approval but if one is desired the following would be properly descriptive:

Improvements Authorized	100,000	
Appropriations		100,000

Stated in nonaccounting terms, the entry says that the legislative body approves the spending of $100,000 (Appropriations credit) on a project

and establishes a resource of like amount (Improvements Authorized), in this instance collection of assessments, to finance the improvements. If the formal entry approach is employed, an identification of the project should be included in the Improvements Authorized title by adding "4th Street Sewer," "Project No. 22," or some similar wording.

The second major event in the project's history is the actual levying of assessments against the body of property owners designated in the organization of the project. The substance of this action is the conversion of a general proclamation of intention to assess (Improvements Authorized) into charges of ascertained amounts against individual property owners and their properties. "Their properties" is significant for the reason that unpaid special assessments have the legal force of liens against the properties to which they pertain. If no entry was made for a formal recording of the projects authorization, the assessment might be journalized as follows:

Assessments Receivable	100,000	
Fund Balance		100,000

Had a preceding entry recorded the assessment authorization, the credit account to be shown above would be Improvements Authorized.

In actual practice, if assessments are payable in installments, the debit member of the above entry should be divided into two parts to indicate amounts now due and amounts on which payments may be deferred to later periods. Assessments that have become due and are not paid within a stipulated period are classified as delinquent and sometimes incur a penalty; proper accounting requires the transfer of delinquent assessments into a special controlling account ordinarily called "Assessments Receivable—Delinquent." In supplementary records, amounts due from individual property owners must be shown in detail, as will be explained at greater length elsewhere in this chapter.

It will be noted that the above entry for recording assessments makes no provision for estimated losses. This differs from the revenue fund entry for recording property taxes, in which the amount of the credit to Revenue is only the difference between the total levy and an estimated amount of uncollectible taxes, recorded in a valuation reduction account. Perhaps the basic reason for assuming that all assessments will be collected by one device or another, is that they represent liens upon real property and, if necessary, resort may be made to legal seizure and sale of the property. Special assessments for improvements are presumed to increase the valuation of the property by at least the amount of the assessment; so in theory, there should be no loss. In practice, the right of seizure and sale has not been an absolute safeguard against losses, particularly in times of financial stringency, nor for assessments on property in areas not fully developed. Recognizing that a certain amount of loss is almost inevitable

for some types of projects in spite of all precautions to the contrary, some governmental units do provide an allowance for expected losses, thereby reducing the probability of a deficit and the necessity of obtaining supplementary financing from other sources.

Assessments are collected, and for these transactions the following entry may be made:

Cash	100,000	
Assessments Receivable		100,000

In practice, collections do not occur in lump-sum amounts. For a given project, they may be spread in smaller amounts over a period of several years. General ledger credits must indicate whether amounts collected apply on delinquent, current, or deferred installments; and supporting details must show the amounts to be credited to each individual property owner participating in the payments and the exact installment, or installments, to which credits are to be applied.

Another fundamental transaction of special assessment funds is expenditure of money for the purpose or purposes contemplated in the establishment of the fund. Although most expenditures of this type of fund will normally be routed through the stages of encumbrance and liability before payment, in a manner to be illustrated later, the final effect is shown in the following entry:

Fund Balance	100,000	
Cash		100,000

The results of the basic special assessment fund entries, through the one immediately preceding, may be summarized as follows:

1. Omitting a formal entry for project authorization—all accounts will be in balance after all cash has been expended.
2. Making a formal entry for the authorization—after the entry for expenditure of cash, Expenditures and Appropriations, each with a $100,000 balance, will be open. They should be disposed of by a closing entry.

In the foregoing entries the accounting framework of special assessment funds has been introduced and illustrated. Actual accounting for funds of this type must deal with many intricacies and complications, probably more than for other types of funds involving equal amounts of money. In the following sections, approved practices for treating these situations will be set forth in considerable detail.

Interim financing

Special assessments, except for current services, are rarely, if ever, collected in lump-sum amounts, as is illustrated in a preceding entry for

the collection of assessments. To avoid undue hardship on property owners, assessments may be payable in installments over several years, which means that interim financing must be resorted to if accomplishment of the project is to be effected in the near future. Furthermore, on account of the uncertain cost of large-scale public improvements, it may be advantageous to defer even the levying of the assessment until more nearly exact information is available about the total cost of the project; and this postponement of the levy moves still further into the future the final collection of installments.

To provide means for immediate financing of improvements, governmental units may issue bonds. This action should have been provided for in the original plans for the project in order that authority to issue the bonds could be obtained from affected property owners when they voted upon the proposed improvement. Three possibilities exist for dealing with the bond authorization. One is to make no ledger entry for it. A second is to debit Bonds Authorized—Unissued and credit Bonds Payable. The third would debit Unissued Bonds and credit Bonds Eligible to be Issued. Following the first authorization procedure, sale of the bonds would be recorded by a Cash debit and Bonds Payable credit. Following the second, the credit would be to Bonds Authorized—Unissued, leaving Bonds Payable to record the bond liability. Following the third, the authorization entry would be canceled by reversal and Bonds Payable would be credited for the cash received. It should be noted that whichever authorization and issue procedure is followed the ultimate result is:

Cash	100,000	
Bonds Payable		100,000

It is probable that the first and second procedures would be the choices of the three. It is noteworthy that bonds issued by a special assessment fund become liabilities of the issuing fund, to be paid from assessments and collections made by it.

In the above discussion, no indication has been given as to the factor or factors determining the amount of the bond issue. It is not necessarily the total cost of the project. If assessments are levied early in the course of the project, with early maturity of some installments, the bond issue need not be for the full cost of the improvement because installment collections will provide a portion of the early financing. Another plan which may reduce the amount required to be raised from bonds is the use of an intragovernmental service fund to provide direct financing or even to perform the actual work, with reimbursement to follow completion of the project. In the meantime, one or more of the earlier installments might have been collected, thus reducing the amount to be raised through the use of bonds.

Another form of interim financing which is sometimes used precedes

the issue of bonds. This is the use of more or less short-term notes. A large-scale use of this method includes financing all or most of the cost of the project through the issuance of notes, which are subsequently retired when the required amount of the bond issue has been definitely ascertained. If the required amount of the bond issue can be determined early in the course of the project, use of short-term notes may be limited to immediate requirements for engineering, planning, and other preliminary costs. Notes of the kind referred to in this section are frequently characterized as "bond anticipation notes." If immediate financial requirements are small and the law permits, an advance from the general fund may obviate the necessity of using notes. Entries for transactions associated with financing by notes are as follows:

Cash for Construction	25,000	
Bond Anticipation Notes Payable		25,000
Issuance of notes for estimated cash requirements pending bond issue.		
Cash for Notes	25,000	
Cash for Construction	175,000	
Bonds Payable		200,000
To record the sale of bonds at par, with $25,000 to be spent for the retirement of notes.		

The foregoing debits to special cash accounts indicate that laws, ordinances, or departmental requirements dictate such a segregation. If such is not the case the modifying phrases may be eliminated, leaving plain Cash for all debits.

Features of special assessment bonds

The primary security for special assessment bonds is the levy against properties for their portion of the project cost. In theory, no other security should be necessary because, in the event of continued default in payments, the governmental unit may foreclose on the benefited property. Although a public improvement may increase the physical value of the property, it may not be possible to find a buyer for it, on account of business and economic conditions or other factors tending to make the property currently unsalable for the amount of charges against it. To improve the marketability of special assessment bonds, the governmental unit may permit its full faith and credit to be pledged as security for their payment, in the event that collections from benefited properties are insufficient to pay the debt. This apparently extreme precaution would seem to be uncalled for, but is probably the result of numerous instances involving flagrant mismanagement of special assessment funds, sometimes due to the inherent intricacies of accounting procedures and sometimes to obviously fraudulent intentions. If the fund bonds are secondarily secured by the full credit of the governmental unit, they are

commonly described as "general obligation special assessment bonds," or more briefly as "general special assessment bonds"; whereas if security is limited to the benefited properties, they are referred to as "special-special assessment bonds."

Within the latter type of bonds, there are three recognized classes, the peculiar characteristics of which have significant accounting implications:

1. Least restrictive of the group are special-special assessment bonds which may be paid, without reference to individual bonds, from collections of any installment on the assessed property.
2. In some instances, specific bonds of the issue must be paid only from collections of installments on certain pieces of property.
3. In the most extreme case, specific bonds must be paid only from collections of certain installments of assessments against certain properties.

These limitations call for the exercise of extreme care in matching installment collections with the bonds to which they may legally be applied and in the management of foreclosure proceedings when installments lapse into actionable default.

Special cash accounts

Whether a given special assessment fund requires one or more than one cash account depends upon the rules and regulations under which the fund operates. Maintenance of separate cash accounts is a device for making sure that cash intended for a specified use is properly controlled and used for its intended purpose. Mingling of cash for construction, bond payment, interest payment, etc., in a single account invites, in time of stringency, use of cash for a purpose other than the one for which it was acquired. The discussion which follows pertains to those funds which do require a careful identification of cash by purpose. If such identification is not required, a single cash account would appear to have wide preference.

In an earlier paragraph, references were made to two classes of cash, one for construction and one for payment of notes. A third special cash account is needed to record collections that are required to be applied to bond retirement, for which account the title Cash for Bond Payments is appropriate. A fourth special cash account is ordinarily required to record collections that must be applied to interest on notes and bonds, and for this account the usual title is Cash for Interest Payments. As will be explained later, the main source of cash for payment of interest on fund debts is interest charges on unpaid assessments. Special assessment funds may receive cash for purposes other than those enumerated above, for which cash the title Cash for Other Payments is frequently used. As might be concluded from the discussion of special-special assessment bonds, accounting for cash must go even further than the use of the suggested special captions. If some bonds may be paid only from the proceeds of

collections on certain installments, it follows that some means must be employed to record exactly which installments on which assessments yielded the cash and which bonds were paid from the collections. However, these detailed requirements do not demand the use of an additional general ledger account but are best satisfied by subsidiary records, thus establishing Cash for Bonds as a controlling account.

Accounting for assessments

As suggested previously in this chapter, one of the early requirements in the operation of a special assessment fund is determination of who shall pay and how much each one shall pay, although assessments are actually against the properties included within the "benefit district," the name given to the area that will receive assessable benefits. There is no universal formula or general rule for determining the limits of the benefit district and none for graduating assessments against the benefited properties. Assessments for operation of sewage disposal plants may be based upon usage of water, which is reasonably objective; but even so, the use of a sewage plant does not vary proportionately with the volume of water consumption. Streets may be presumed to represent greater values to owners of property adjacent thereto, but they are likely to be used by many other residents of the particular neighborhood and to increase neighborhood property values. The exact definition of the benefit district and the scaling of individual assessments therein are matters of judgment to be supplemented by arbitrary rules and regulations which should strive for uniformity of treatment among property owners in similar situations.

After the limits of the benefit district have been decided upon and some method or scheme for distributing the cost has been selected, the next step is one of determining the amounts of assessments against individual properties. Compilations of individual assessments are called "assessment rolls" or "assessment ledgers," both of which are subsidiary records for showing all transactions with owners of each property in the district. Forms of assessment rolls or ledgers vary, but all must provide for showing at least the following basic facts:

1. Identification of the improvement or project.
2. Legal description of the property in terms of location.
3. Name and address of owner.
4. Amount of assessment.
5. Number of installments or detailed listing of installments with due dates.
6. Charges for interest on unpaid assessments.
7. Record of collection of all charges.

One form of assessment record consists of a multicolumnar spread sheet, on which each property is given a single line, with individual properties listed vertically on the sheet. Division of the assessment into installments, interest charges, and credits for collections is provided by a series of

Illustration 10–1

CITY OF STANFORD

Special Assessment Roll
Public Improvement Project No. 73

Name and Address of Property Owner	*Description of Property*	*Amount of Assessment*	*Installment No. 1*			*Installment No. 2*		
			Date Paid	*Principal*	*Interest*	*Date Paid*	*Principal*	*Interest*
George M. Robinson...	Lot 10, Seminary Addition	$840	8–10–68	$84		8–26–69	$84	$30.24
John E. Baugh.	Lot 11, Seminary Addition	900	8–23–68	90		8–31–69	90	32.40

parallel columns. The general plan of this form is shown in Illustration 10–1. The installments section of Illustration 10–1 may be expanded to provide for the number of installments into which the assessment is divided. A modification of the roll form of record in Illustration 10–1 consists of listing vertically the original installments for each property, with columns extended to the right for recording such information as adjustments, collections, interest, etc. This means that if the assessment is payable in 10 installments, 11 lines (one for the total of all installments) will be given to each property.

An alternative assessment record consists of a separate card or page for each property, referred to as a "Special Assessment Ledger." One attribute of the Special Assessment Ledger is that it gives an opportunity for showing more details about each assessment, without producing a record too cumbersome for convenient handling. A suggested form for a special assessment ledger account is shown in Illustration 10–2.

Illustration 10–2

SPECIAL ASSESSMENT LEDGER ACCOUNT

Property: Lot No. 10, Seminary Addition
Owner: George M. Robinson

Project No.: 73
Description: Sewer
Total Assessment: $840

Installment No.	*Due Date*	*Amount*	*Collections*				*Remarks*
			Date	*Receipt No.*	*Principal*	*Interest*	
1........	Sept. 1, 1968	$84	Aug. 10, 1968	139	$84		
2........	Sept. 1, 1969	84	Aug. 23, 1969	365	84	$30.24	

Since the assessment roll or Special Assessment Ledger is subsidiary to the general ledger assessments receivable accounts, special care in recording transactions, supplemented by frequent reconcilements, is necessary to keep the subsidiary and control records in agreement. Without going into a detailed discussion concerning the operation of the various installment accounts, it may be said that the following relationships must exist for accurate records:

1. When an assessment is levied and recorded in the general ledger, the amount debited to the Assessments Receivable account or accounts must equal the total of the assessments shown by the detailed assessment records. If one installment is now due, the amount of that installment as shown by the assessment records should be debited to Assessments Receivable—Current. The amounts of all other installments, as shown by the assessment records, should be debited to Assessments Receivable—Deferred.
2. When the period arrives for payment of an installment that has heretofore been classified as deferred, the total amount of this installment as shown by the assessment roll or ledger should be debited to Assessments Receivable —Current and credited to Assessments Receivable—Deferred.
3. When the period for payment of an installment has passed, the unpaid balance of Assessments Receivable—Current should be transferred to Assessments Receivable—Delinquent by a credit to the former and a debit to the latter. Assuming that installment No. 2 is the one being converted to the delinquent classification, the balance transferred must equal the total of unpaid balances of installment No. 2 in the assessments records.

Forced collections

Effective administration of special assessment collections requires definite rules for the addition of interest to delinquent installments and for the initiation and prosecution of foreclosure action when a certain stage of delinquency, frequently two years' installments has been reached. Laxity in the application and collection of interest leads to further delinquency and tends to increase the number of assessments for which foreclosure actions are necessary. Completed foreclosure actions are of two kinds. In one case, contingent title to the property, subject to redemption within a stipulated period, is sold to a third party. In the other case, contingent title is taken by the special assessment fund itself.

Some governmental units sell installment delinquent property by requiring the purchaser to pay only costs of holding sale, accrued interest against the property, and those installments now due or past due. Thus the buyer is subrogated for the previous owner by doing two things:

1. Paying all charges and installments due and payable to date.
2. Assuming responsibility for payment of deferred installments plus interest charges thereon.

On the other hand, the buyer may be required to pay *all* installments and all other charges in order to obtain provisional title. This more drastic requirement is justified by the fact that the buyer acquires the property

(provisionally) in an arm's-length transaction in which he was not compelled to participate. The previous owner had no choice, since his property was located in the benefit district. Deferral of installments was a device to lighten the burden of what may have been an involuntary debt. Explanations and illustrations in the following paragraphs will relate to total collection sales since they include all elements of the partial payment sales. For present purposes it is being assumed that the special assessment fund to which the discussion and illustrations pertain is being operated under regulations or other circumstances that require segregation of cash to be used for different purposes. In any case in which there is neither requirement or need for such segregation, special account titles should be eliminated.

Special assessment laws prescribe procedures to be followed when foreclosure proceedings must be employed to collect installments. They include, among other things, legal notification to the property owner of the intention to offer his property for sale and public advertising of the intended sale. As indicated above, costs of these actions become an additional charge against the property. Assuming the total costs of holding the sale to be $25, the following entry would be made:

Cost of Holding Sale	25	
Cash for Construction		25

There is no imperative reason for financing the cost of holding the sale from Cash for Construction, except that cash for interest and cash for bonds are held more as trust assets than is cash for construction. Below is illustrated a complete entry for sale of property, amounts assumed:

Cash for Construction	175	
Cash for Bond Payments	1,650	
Cash for Interest Payments	120	
Assessments Receivable—Delinquent		300
Assessments Receivable—Current		150
Assessments Receivable—Deferred		1,350
Interest Receivable		120
Cost of Holding Sale		25

Recovering the cost of holding the property sale eliminates the Cost of Holding Sale account, which may be characterized as a suspense account. In the above examples, it proved to be an asset, in the form of a charge that was eventually paid by the successful bidder for the property. In case the special assessment fund had taken title to the property and subsequently transferred it to the general government without compensation, Cost of Holding Sale would have terminated as an expense account, to be charged off as later illustrated.

Had the property brought more than the total charges against it, the excess would belong to the previous owner. Three possibilities are available for handling the excess, as follows:

1. The sale might be conducted by an agency outside the special assessment fund. The special assessment fund would receive only the amount of its total claims against the property. Any excess would be disposed of as dictated by law.
2. If the special assessment fund conducts the sale, the extra cash may be debited to Cash for Other Payments and credited to Due to Property Owner, this entry to be reversed when settlement is made with the property owner.
3. The law might prescribe transfer of the excess to a trust fund, in which case Cash for Other Payments would be debited, with a credit to Due to Property Owners' Trust Fund. The entry for payment to the trust fund is obvious.

As indicated previously, especially for properties not fully developed, third parties may not offer the full amount of charges against the property, with the result that the special assessment fund acquires the property with only provisional title. Assuming the same charges against the property as before, the following entry would be made:

Assessment Sale Certificates	1,945	
Assessments Receivable—Delinquent		300
Assessments Receivable—Current		150
Assessments Receivable—Deferred		1,350
Interest Receivable		120
Cost of Holding Sale		25

The effect of the above entry is to accumulate all values represented by the assortment of charges against the property into one asset account, Assessment Sale Certificates, which represents provisional ownership of the property. Provisional ownership may be converted into cash, for use in carrying out the improvement project, through redemption by the previous owner within the time allotted by law; or it may be sold, either to private buyers or to another unit of the government. Regardless of the transferee, the special assessment fund should receive cash to cover all charges accumulated in the Assessment Sale Certificates account. This would call for the same detailed accounting as if the amounts had been collected in due course without foreclosure. Transfer of the assessment sale certificate for cash in full would require an entry such as the following:

Cash for Construction	175	
Cash for Bond Payments	1,650	
Cash for Interest Payments	120	
Assessment Sale Certificates		1,945

The above entry assumes one $150 installment was designated for construction, to which was added the $25 construction cash spent as a cost of holding the sale.

Comparison of the above entry with a previous entry recording the sale of the property to a third party (p. 278) reveals that the distribution of total cash received is the same in both cases. If law or ordinances required that the purchaser of the assessment sale certificate should pay interest for the time the title was held by the assessment fund, the amount of interest accumulated would be taken up as Interest Revenue (unless it had been previously accrued); and the resulting cash would go to Cash for Interest Payments.

Special assessment fund administrations have often found it necessary to take absolute title to property for which no buyer could be found. This experience has been most frequent in connection with special assessment projects in undeveloped areas. Since a special assessment fund is not constituted for permanent ownership of real estate, property which cannot be sold must be transferred to another fund or to the general fixed assets group of accounts. The amount accumulated in the Assessment Sale Certificates account with respect to a given property represents charges that had been set up against the property as assessments and interest receivable, which the fund management had expected to convert into cash for payment of construction, bonds, and interest costs. If the amount of the assessment sale certificate is to be extinguished by a no-charge disposal of the property, the effect is a reduction of the amounts available for the three purposes stated above.

Accounts to be used for recording the disposal depend upon whether the fund is required to maintain a separation of assets and equities (fund balance) pertaining to its construction and its debt service activities, i.e., payment of debts and interest. If such is not the case a two-member entry is sufficient.

Fund Balance	1,945	
Assessment Sales Certificates		1,945

If the construction, bond, and interest components of the $1,945 are to be recognized, the following entry would report the significant information:

Fund Balance—Construction	175	
Fund Balance—Bonds	1,650	
Fund Balance—Interest	120	
Assessment Sale Certificates		1,945

If interest had been formally accrued on the assessment while the certificate was held by the improvement fund, the amount of the accrual would be written off at this time, with an addition to the Fund Balance—Interest

debit. Debits to the balance accounts signify that amounts heret recorded for the three purposes have been reduced by surrender, wi cost, of the assessment sale certificate, in which had been accumu certain charges originally expected to be converted into cash and usc the purposes indicated. It should be noted that transfer of the pro without compensation results in the final loss of $25 of constructior which was used to defray the cost of advertising the property foi This amount and the first installment of $150 compose the debit to Balance—Construction.

Illustrative transactions and entries

As indicated in earlier parts of this chapter, the life history of a s| assessment fund may be of long duration from the original authori: to the final payment on the indebtedness. However, most kinds of tra tions typical of a special assessment fund are likely to occur in the years of its existence. The majority of these typical transactions w included in the example to follow. Since foreclosures have been disc and illustrated in detail, they will be omitted from the transactions covered at this time.

1. In compliance with all pertinent laws and regulations, a special asses project for the construction of a storm sewer was authorized b city of X at an estimated cost of $75,000. This legal action is comp to the enactment of a budget for a revenue fund. Formerly the wei authority recommended an entry debiting Improvements Authorize crediting Appropriations to record the action. In its latest pronounce the National Committee on Governmental Accounting favors om of what might be called the budgetary entry, and the recommen will be followed in this illustration.
2. To cover preliminary costs pending more extensive financing, a porary loan was obtained from the general fund in the amount of $

Cash for Construction	6,000	
Due to General Fund		6,0

Assuming no classification of cash was necessary, the debit in this would have been merely Cash.

3. Bids were opened and a contract let for the main construction proj the amount of $65,000:

Encumbrances	65,000	
Reserve for Encumbrances		65,0

4. Based on the contract mentioned above, and taking into account probable costs, an assessment roll was prepared in the amount of $6 with $12,000 additional to be contributed by the city. Assessments w

be paid in 10 equal installments, and it was anticipated that the city's share would be paid in two equal installments. The first installment and the city's share of the cost were to be used for construction, whereas collections from the remaining installments were to be used for bond retirement:

Assessments Receivable—Current	6,000	
Assessments Receivable—Deferred	54,000	
City's Share of Cost	12,000	
Fund Balance—Construction		18,000
Fund Balance—Bonds		54,000

Had a budgetary entry been made to record authorization of the project, the two credits above would have been replaced by a $72,000 credit to Improvements Authorized.

5. Engineering and other preliminary costs related to the construction project were paid in the amount of $5,000:

Construction Expenditures	5,000	
Cash for Construction		5,000

It is hardly necessary to describe special assessment fund expenditures as Construction Expenditures. If the fund is for construction, all its expenditures, except for interest, are most certainly for that purpose. (Although recorded as a direct cash payment, this transaction might have been routed through a voucher system and recorded in a Vouchers Payable account before actual payment. For brevity, in the examples to follow, expenditure transactions will not be recorded as vouchers payable before disbursement.)

6. A bond issue not to exceed $60,000 was authorized, and $25,000 of bonds were sold at par:

Cash for Construction	25,000	
Bonds Payable		25,000

(If required by law or other regulation, the bond authorization might have been formally recorded by a debit to Bonds Authorized—Unissued and a credit to Bonds Payable, in which case the sale of the bonds would have required a credit to the former account.)

Fund Balance—Bonds	25,000	
Fund Balance—Construction		25,000

(This entry records the increase in assets designated for construction by the creation of a liability against assets designated for bond retirements. For the bond segment of this fund, a liability was created against $54,000

of assessments, but cash from sale of the bonds went to the constructi segment. The liabilities of the bond segment increased without an incre in bond assets. Construction segment assets increased without an incre in liabilities.)

7. In compliance with the terms of the construction contract, the contrac submitted a bill for partial payment based on the supervising enginee certification of 40 percent completion:

Reserve for Encumbrances	26,000	
Encumbrances		26,000
Construction Expenditures	26,000	
Contracts Payable		26,000

8. Interest receivable accrued on assessments during the first year amount to $1,200:

Interest Receivable	1,200	
Interest Revenue		1,200

9. During the first year, one half of the city's share of the cost and percent of the current assessment, with interest, were collected:

Cash for Construction	11,400	
Cash for Interest Payments	1,080	
City's Share of Cost		6,000
Assessments Receivable—Current		5,400
Interest Receivable		1,080

10. Unpaid assessments due in the current year were transferred to t delinquent classification:

Assessments Receivable—Delinquent	600	
Assessments Receivable—Current		600

11. The contractor's bill, less 5 percent retained as a performance guaran was paid:

Contracts Payable	26,000	
Cash for Construction		24,700
Contracts Payable—Retained Percentage		1,300

12. The advance from the general fund was repaid:

Due to General Fund	6,000	
Cash for Construction		6,000

operations within the authorizations granted for given periods. The same reason does not exist with special assessment funds because authorizations to spend are primarily on a project basis, possibly supplemented by memorandum allocations by periods, as a means of better control over a multiperiod project. Additions to the cost of fixed assets being produced by special assessment procedures formerly have been made (in the Long-term or Fixed Assets Group) on the basis of *expenditures* during a period, i.e., what was actually spent on them during that period.

The present weight of authority advocates additions to long-term asset costs on the basis of expenditures plus encumbrances during a given period. In pursuit of this policy, periodical closing of Encumbrances in multiperiod projects is advocated as being desirable. Another reason for closing Encumbrances at the ends of periods for uncompleted projects is that, with closing Expenditures, it assists in reducing a Fund Balance to the amount available for expenditure in a subsequent period. Formerly this information was shown only in a schedule. Two facts about the mechanics of closing Encumbrances as now recommended seem apparent:

a) Amounts of encumbrances added to long-term asset costs at the end of a period will have to be subtracted from the expenditures pertaining to them in the next period, to avoid double addition of the same amount.

b) If the amount of an expenditure of a special assessment fund in one period differs from the amount encumbered for it, and added to the cost of some long-term asset in a prior year, an adjustment of the amount added last period for the encumbrance will be necessary.

In spite of reservations about the desirability of closing Encumbrances at the ends of time periods when a special assessment project has not been completed, the policy will be followed in illustrations and problems, in the absence of a specific statement to the contrary.

2. Construction Expenditures is not closed as a matter of policy but to correlate with additions to the fixed or long-term asset account being produced by the special assessment project. Insofar as special assessment fund accounting is concerned, there is no reason for closing the account until the project is completed.

3. Because of restrictions commonly placed on special assessment fund assets it is desirable, if such restrictions exist, to show the balance of assets under each restriction, as for construction, bond payments, etc. This can be done by establishing a special fund balance account for the difference between assets and liabilities in each category of purposes. Thus, assets provided for construction should give rise to a Fund Balance—Construction account. If there is no reason, within a given fund, for maintaining a balance for each category of assets and liabilities, only a general account, Fund Balance, should be used.

A balance sheet prepared following closing entries at December 31, 1968, should appear, approximately at least, as shown in Illustration 10–4.

Illustration 10–4

CITY OF X

Storm Sewer Special Assessment Fund
Balance Sheet, December 31, 1968

Assets

Cash:		
For construction	$ 6,700	
For interest payments	1,080	$ 7,780
Assessments receivable:		
Delinquent	$ 600	
Deferred	54,000	54,600
City's share of cost		6,000
Interest receivable		120
Total Assets		$68,500

Liabilities, Reserve, and Fund Balances

Liabilities:		
Accrued bond interest	$ 750	
Contracts payable—retained percentage	1,300	
Bonds payable	25,000	
Total Liabilities		$27,050
Reserve for encumbrances		39,000
Fund balances:		
For construction (deficit)	$ (27,000)	
For bonds	29,000	
For interest	450	
Total Fund Balances		2,450
Total Liabilities, Reserve, and Fund Balances		$68,500

"Approximately" refers to the fact that there are acceptable variations of the form used in that illustration.

The deficit position of Fund Balance—Construction at the end of the first year is not, in this instance, an indication of present or future financial difficulty. It comes about from the following circumstances:

1. Cash for construction is to be derived from (*a*) collections on the first installment of assessments and (*b*) proceeds of the sale of bonds.
2. At the end of the first year, only the amount of the first installment ($18,000) and the proceeds of selling $25,000 par value of bonds had been credited to Fund Balance—Construction, a total of $43,000.
3. However, $70,000 had been charged to the account in the closing entries, on account of $31,000 construction expenditures and $39,000 encumbrances for construction costs.

Had enough more bonds been sold to yield $27,000 or more, the account would not have had a debit balance at December 31, 1968. Also, had the authorization to issue the $35,000 more bonds been recorded as a resource with a credit to Fund Balance—Construction, the debit balance in the account would not have existed.

Concurrently with balance sheet preparation a schedule, or schedules,

should be drawn from the special assessment roll or ledger, showing delinquent and deferred assessments and interest payable by individual properties and property owners. Totals shown by these schedules must agree with the appropriate controls—delinquent assessments receivable, deferred assessments receivable, and interest receivable—in the general ledger.

Illustrative entries for second year

In the following transactions and entries for the second year, it will be assumed that the construction project is finished, together with the closing of accounts related to the construction, leaving mainly the collection of assessments and payment of bonds to the remaining periods.

1. The encumbrances closed at the end of 1968 were reestablished in the Encumbrances account:

Encumbrances	39,000	
Fund Balance—Construction		39,000

2. The second installment became due:

Assessments Receivable—Current	6,000	
Assessments Receivable—Deferred		6,000

3. An order for additional work was issued to an IGS fund, the estimated cost being $2,000:

Encumbrances	2,000	
Reserve for Encumbrances		2,000

4. Interest charged to property owners' accounts during the year amounted to $3,100:

Interest Receivable	3,100	
Interest Revenue		3,100

5. Collections on current assessments during the year amounted to $5,200, along with $2,900 for interest receivable and the balance of the city's share of the cost:

Cash for Construction	6,000	
Cash for Bond Payments	5,200	
Cash for Interest Payments	2,900	
City's Share of Cost		6,000
Assessments Receivable—Current		5,200
Interest Receivable		2,900

6. Collections of delinquent assessments during the year totaled \$300, with interest collections of \$170, of which \$140 had previously been accrued:

Cash for Construction	300	
Cash for Interest Payments	170	
Assessments Receivable—Delinquent		300
Interest Receivable		140
Interest Revenue		30

7. Of the remaining authorized bonds, \$29,000 par value were sold at 101 plus accrued interest, which amounted to \$280. Premium was designated for interest payments:

Cash for Construction	29,000	
Cash for Interest Payments	570	
Premium on Bonds		290
Interest Expense		280
Bonds Payable		29,000

8. Balances of Fund Balance—Construction and Fund Balance—Bonds were adjusted for the effect of selling bonds to obtain cash for construction:

Fund Balance—Bonds	29,000	
Fund Balance—Construction		29,000

(Sale of the bonds increased the amount of liability chargeable against Assessments Receivable—Deferred and cash which had been collected for bond payments. That decreased Fund Balance—Bonds. The increase of Cash for Construction, not offset by a liability against Cash for Construction, increased the balance of Fund Balance—Construction.)

9. The contractor presented a bill for the balance of his contract:

Reserve for Encumbrances	39,000	
Encumbrances		39,000
Construction Expenditures	39,000	
Contracts Payable		39,000

10. Bond interest paid during the year amounted to \$1,600, including the \$750 accrued at the end of last year:

Accrued Bond Interest	750	
Interest Expense	850	
Cash for Interest Payments		1,600

(An entry could have been made at the beginning of this year to reverse the adjusting entry which recorded accumulated bond interest. If that had

been done, the two above debits would have been joined in a single debit to Interest Expense for $1,600.)

11. The IGS fund presented a bill for $1,800 for services performed, and payment was made:

Reserve for Encumbrances	2,000	
Encumbrances		2,000
Construction Expenditures	1,800	
Cash for Construction		1,800

12. The contractor's bill, less 5 percent retained, was paid:

Contracts Payable	39,000	
Contracts Payable—Retained Percentage		1,950
Cash for Construction		37,050

13. Bonds payable of $5,000 par value were presented for payment and paid from proceeds of the second installment; accrued interest on these bonds amounted to $100:

Bonds Payable	5,000	
Interest Expense	100	
Cash for Bond Payments		5,000
Cash for Interest Payments		100

14. Unpaid current assessments were declared delinquent:

Assessments Receivable—Delinquent	800	
Assessments Receivable—Current		800

15. Interest accrued on bonds at the end of the year amounted to $1,500:

Interest Expense	1,500	
Accrued Bond Interest		1,500

A trial balance of the storm sewer special assessment fund at December 31, 1969 would appear as shown in Illustration 10–5.

Appropriate closing entries for December 31, 1969 would be as follows:

Fund balance—construction	40,800	
Interest revenue	3,130	
Premium on bonds	290	
Construction expenditures		40,800
Interest expense		2,170
Fund balance—interest		1,250

Illustration 10–5

CITY OF X

Storm Sewer Special Assessment Fund
Trial Balance, December 31, 1969

	Debit	Credit
Cash for construction	$ 3,150	
Cash for interest payments	3,020	
Cash for bond payments	200	
Assessments receivable—delinquent	1,100	
Assessments receivable—deferred	48,000	
Interest receivable	180	
Accrued bond interest		$ 1,500
Contracts payable—retained percentage		3,250
Bonds payable		49,000
Fund balance—construction		41,000
Fund balance—interest		450
Interest revenue		3,130
Premium on bonds		290
Construction expenditures	40,800	
Interest expense	2,170	
	$98,620	$98,620

Illustration 10–6

CITY OF X

Storm Sewer Special Assessment Fund
Balance Sheet, December 31, 1969

Assets

Cash:		
For construction	$ 3,150	
For bond payments	200	
For interest payments	3,020	$ 6,370
Assessments receivable:		
Delinquent	$ 1,100	
Deferred	48,000	49,100
Interest receivable		180
Total Assets		$55,650

Liabilities and Fund Balances

Liabilities:		
Accrued bond interest	$ 1,500	
Contracts payable—retained percentage	3,250	
Bonds payable	49,000	
Total Liabilities		$53,750
Fund balances:		
Construction	$ 200	
Interest	1,700	
Total Fund Balances		1,900
Total Liabilities and Fund Balances		$55,650

A balance sheet of the fund at December 31, 1969 would appear as shown in Illustration 10–6.

Analysis of the above balance sheet would reveal the following relationships:

1. Assets related to construction consist of $3,150 cash and $300 delinquent assessments ($600 delinquent at the end of the first year less $300 collected in 1969). This total of $3,450 is offset by contracts payable—retained percentage, $3,250, and fund balance—construction, $200.

2. Cash of $200 for bond payments, delinquent assessment (from 1969 installment) of $800, and deferred installments (all for bonds) of $48,000 are offset by $49,000 of bonds payable.

3. Cash of $3,020 for interest payments and $180 interest receivable are offset by accrued bond interest of $1,500 and fund balance—interest of $1,700.

The question may be asked as to the procedure to be followed for a special assessment fund for which segregation of assets, with corresponding identification of fund balances, is not required. The answer is simply that only one category of assets is needed and a single fund balance is sufficient. Otherwise, transactions, entries, and statements follow the same form as has been illustrated.

Two other kinds of statements of value in special assessment fund accounting and reporting are statements of cash receipts and disbursements, and analyses of changes in fund balance, shown in Illustrations 10–7 and 10–8.

If a governmental unit has, at one time, two or more special assessment

Illustration 10–7

CITY OF X

Storm Sewer Special Assessment Fund
Statement of Cash Receipts and Disbursements, 1969

Items	*Total*	*Construction*	*Bonds*	*Interest*
Balances, December 31, 1968	$ 7,780	$ 6,700	None	$1,080
Receipts:				
Collection of delinquent assessments	$ 300	$ 300		
Collection of city's share of cost—one half	6,000	6,000		
Sale of bonds	29,000	29,000		
Collection of 1969 installment	5,200		$5,200	
Premium on sale of bonds	290			$ 290
Collection of interest on bonds sold between interest dates	280			280
Collection of interest on installments	3,070			3,070
Total receipts	$44,140	$35,300	$5,200	$3,640
Total beginning balance and receipts	$51,920	$42,000	$5,200	$4,720
Disbursements:				
Payments on construction contract	$37,050	$37,050		
Other construction expenditure	1,800	1,800		
Regular interest payment on bonds	1,600			$1,600
Payment of interest on bonds at retirement	100			100
Retirement of bonds	5,000		$5,000	
Total disbursements	$45,550	$38,850	$5,000	$1,700
Balances, December 31, 1969	$ 6,370	$ 3,150	$ 200	$3,020

funds in existence, a combined statement of cash receipts and disbursements could be prepared in the following manner:

1. Cash for all purposes (construction, bonds, interest) would have to be combined into single amounts, as in the *Total* column of Illustration 10-7.
2. Amounts for the several funds would be shown in columns, as for *Construction, Bonds,* and *Interest* in Illustration 10–7.

Illustration 10–8

CITY OF X

Storm Sewer Special Assessment Fund
Analysis of Change in Fund Balance, 1969

Project authorization		$75,000
Fund balances, December 31, 1968:		
Construction (deficit)	$(27,000)	
Bond	29,000	
Interest	450	
Total		$ 2,450
Additions:		
Reestablishment of 1968 encumbrances closed at December 31, 1968	$ 39,000	
Interest revenue earned	3,130	
Premium collected on bonds sold	290	
Sale of bonds (increased fund balance—construction)	29,000	
Total additions		71,420
Total beginning balance and additions		$73,870
Deductions:		
Construction expenditures	$ 40,800	
Sale of bonds (decreased fund balance—bonds)	29,000	
Interest expense incurred*	2,170	
Total deductions		71,970
Fund balances, December 31, 1969		$ 1,900
For construction	$ 200	
For interest expense	1,700	
Total		1,900

* Interest Expense account was debited for $2,450, but $280 of that amount was a refund of accrued interest collected on coupon bonds sold between interest dates.

Illustration 10–8 demonstrates a few minor complexities that may complicate the preparation of an analysis of changes in the balance of a special assessment fund. Unfortunately, it is not possible to draw general rules which would provide guidance in the process of preparation. Obviously the process would be simplified if there were no restrictions upon the use of specific assets. If a balance sheet has been prepared for the end of the fiscal year to be covered by the analysis, keeping in mind the balance or balances which must be arrived at, as shown by the ending balance sheet, may be a minor aid but certainly not a full solution to the difficulty.

Assessment rebates

Assessment rebates include reductions of amounts now charged to beneficiaries of the fund and refunds of amounts already collected. Trans-

actions of the first kind, commonly called "abatements," are more numerous than refunds. Rebates will be discussed in two groups, based upon the reason for the adjustment.

Rebates of one kind are brought about by errors in the assessment levy, the word "error" being used here in a very general sense. More specifically, rebates of this sort are based upon findings that certain individual assessments are in excess of the amount legally owed; in fact, the entire amount of some individual assessments may be canceled. More common causes of adjustments falling in this category are incorrect classification of property, arithmetical errors in calculation of assessment, errors in description of property, and exceeding legal limit of assessment based on ratio to property value. Standard procedures are usually prescribed for presentation and consideration of claims based upon alleged overassessment. A finding in favor of the claimant calls for a rebate of the amount allowed by the reviewing body, but this allowance will not necessarily be equal to the amount claimed.

Journalizing a rebate of this kind usually calls for canceling all or part of the original assessment, this assertion being predicated upon the assumption that payments are likely to be withheld while the amount of the assessment is in dispute. Credits for the rebate will depend upon the present classification of installments, that is, their distribution as to delinquent, current, and deferred. Assuming a rebate of 25 percent on a $600 assessment, of which $60 is now current and the balance deferred, the following entry would be required:

Fund Balance[2]	150	
Assessments Receivable—Current		15
Assessments Receivable—Deferred		135

Special care should be observed in explaining the above entry and in posting to the Special Assessments Ledger, in order to guard against suspicions of irregularity in reducing the amount shown as owing. If payments of installments and interest have been made before the granting of the rebate, proportionate amounts of cash may be refunded, thus requiring modification of the credit members of the above entry.

Rebates of the second kind apply to all property owners within the benefit district and are brought about by completion of the project at a total cost which is less than the amount levied against the properties, plus any amount to be contributed by the governmental unit. Excess levies are likely to occur only when enacted before the total cost of the improvement is known. In general, an excess assessment is indicated when a project nears completion at an estimated total cost which is substantially

[2] If proceeds of assessments are restricted as to purposes (construction, bonds, etc.), the fund balance debit should be divided to show any difference which may be required by the restrictions.

less than the amount which apparently will be produced by the total of assessments and grants.

The existence of a construction surplus having been ascertained, it remains to decide upon when and how to dispose of the balance. From an administrative standpoint, rebates should be withheld beyond all reasonable possibility that widespread defaults on assessments and losses in foreclosure might impair the fund's ability to pay bonds as they mature. Furthermore, statutory regulations may even prohibit the rebating of assessments until the bonds are paid in full. An important factor in judging probable collectibility of unpaid installments is the ratio of assessment balances to the value of properties to which they apply, taking into account other possible liens, such as property taxes.

Even though a construction excess exists, it may not be rebated. First, it may be so small that the cost of distribution would exceed the amount to be distributed. Unless rebating is specifically required by law, a small credit in Fund Balance—Construction may, at the discretion of the special assessment fund governing body, be transferred to some other fund; or the transfer may go to interest balance if a deficiency has developed or is expected to develop in that account. If the excess is to be rebated, the amount, here assumed to be $25,000, may be closed out of construction as follows:

Fund Balance—Construction	25,000	
Reserve for Rebates		25,000

If the construction excess were in the form of cash, to be refunded to property owners, Rebates Payable might well be substituted as the credit member of the above entry. A construction excess embodied partly in cash and partly in uncollected assessments should be apportioned according to law or, if no legal restrictions apply, in some manner equitable to all property owners. The division of the rebate between cash and credit having been determined, in this case $10,000 cash and $15,000 credit, for illustration, the following entry might be made:

Reserve for Rebates	25,000	
Rebates Payable		10,000
Assessments Receivable		15,000

The credit to Assessments Receivable should be divided between delinquent, current, and deferred assessments according to a decision by the governing body. Needless to say, the credit members of the above entry must be supported by detailed schedules by properties and owners, with Assessments Receivable details posted to the Special Assessments Ledger. Rebates Payable will be liquidated by cash disbursements, the entries for which are obvious.

Construction deficits

A construction deficit may arise from one or both of two causes, set forth below:

1. Excess of total project cost over the total amount levied against property owners and the governmental unit, plus any supplementary contributions from other sources. This condition is most likely to arise when assessments are levied before the total cost of the project is ascertained.
2. Large-scale defaulting of installments, coupled with inability to dispose of foreclosed properties for the amount of charges standing against them.

Three general possibilities are available for elimination of construction deficits, the one to be selected depending upon such factors as the amount of the deficiency, laws and ordinances governing special assessments, and local circumstances:

1. If the deficit is of small amount, it may be covered by a transfer from other improvement funds, if permitted by law, or by a contribution from a revenue fund, general or special.
2. If sufficient help is not available from other improvement funds, even a sizable deficit might be covered by the general government in preference to levying and collecting additional amounts from owners of property located in the benefit district.
3. Deficiencies of major proportions are likely to call for additional or supplemental assessments. The nature of supplemental assessments is of such importance that the next section is devoted to the subject.

If the deficit is eliminated by direct receipt of cash from some other fund, the following simple entry (amount assumed) will suffice:

Cash for Construction	2,000	
Fund Balance—Construction		2,000

Accounting for supplemental assessments

Supplemental assessments are, as the name indicates, charges to property owners in addition to the original levy which was made to cover the cost of the improvement. They may be resorted to for one or the other of two purposes, as follows:

1. To finance a deficiency brought about by losses in the collection of installments, in amounts of such size that incidental aid from other funds would be inadequate.
2. To finance improvement costs materially in excess of the original estimate, as well as costs for additions to the original project.

As with other phases of special assessment activities, supplemental levies should comply with all applicable laws and ordinances, particularly with respect to the rights of affected property owners. To record a supplemen-

tal assessment of $15,000 for eliminating a construction deficit, the following entry might be made:

Assessments Receivable—Supplemental	15,000	
Fund Balance—Construction		15,000

The above entry establishes a separate control account for the extra levy, and a new subsidiary record for property owners is required. Supplemental assessments, if of considerable amount, may be payable by installments, with the same accounting procedures as used for the original levy. However, the use of a new control and new subsidiary accounts is not mandatory: the additional levy may be regarded as an expansion of the first one and prorated over the subsequent installments of the original. The increased assessment would then be debited to Assessments Receivable—Deferred and entered in the assessment ledger accounts already established. It may be that not all deficit and additional financing is supplied by property owners. If the governmental unit was charged for a part of the original estimate, it may be expected to bear part of the additional cost. To record this fact would require a debit to Governmental Unit's Share of Cost, along with the charge to Assessments Receivable—Deferred.

Inadequacy of the original budget to cover the cost of the project is indicated if total charges to Construction Expenditures and Encumbrances closely approach the original authorization, with a substantial part of the project estimated cost not yet recorded. Upon official action of the appropriate governing body to increase the total authorization, an assessment levy is legal and may be made when needed to help finance the fund project, which may be immediately or some weeks or months hence.

When the levy has been established, it would be recorded in the usual manner for a special assessment, debiting Assessments Receivable—Current (or Deferred) or Assessments Receivable—Supplemental, as required by the proposed manner of collection. Although discussed in connection with construction deficits, supplemental assessments may be initiated to provide funds for bond payments, which would require that collection proceeds be recorded in Cash for Bonds rather than Cash for Construction.

Interest income and expense transactions

It will be recalled that receipts and payments of interest were included among transactions typical of special assessment funds, in connection with an example provided earlier in this chapter. Interest income is secondary to interest expense; that is, interest probably would not be charged and collected on assessments except as a means of financing interest expense on bonds issued to permit immediate construction of the improvement, although assessment collections are to be spread over future years.

In theory, the interest rate on assessments should be just high enough to provide the amount of money needed to pay interest on bonds. This exact correlation of income and expense cannot usually be obtained in practice, one important reason being that some property owners, if permitted to do so, may choose to pay installments in advance, with the purpose of avoiding interest.[3] Furthermore, sale of properties through foreclosure proceedings may not realize the total charges standing against the property, resulting in some shrinkage of anticipated receipts. Calling of bonds before the maturity date is a third factor which may affect the planned balance between interest income and interest expense, such action tending to produce an interest surplus. Although referred to earlier in this chapter, it may be repeated here that interest income and interest expense are summarized in an account entitled Fund Balance—Interest, the balance of this account after the closing entries indicating the comparison between interest earnings and expenses to date.

Special assessment fund bonds, like other kinds of bonds, may be sold at more or less than par; and it might be thought that premium or discount on such bonds would affect net interest expense. This would be true if premium or discount in a special assessment fund were deferred and subsequently amortized over the life of the bonds. Such practice is not standard procedure because there is little point to determining net interest expense by periods for a special assessment fund. The important question is whether *cash* interest expense is adequately covered by *cash* received from property owners in payment of interest on assessments. Direct closing of premium and discount (using assumed amounts) may be accomplished by the following entries:

For discount:

Fund Balance—Construction[4]	2,000	
Discount on Bonds Payable		2,000

For premium:

Premium on Bonds Payable	2,000	
Fund Balance—Interest		2,000
Cash for Interest Payments	2,000	
Cash for Construction		2,000

[3] Some special assessment funds forestall a shortage of interest money resulting from prepayment of installments by requiring that interest be paid in full to the original maturity dates of the installments which are prepaid.

[4] The discount might be made up by a grant from another fund, in which event the construction balance would be unaffected by the discount, and the debit in this entry would be to Cash for Construction. Another possibility, if any bonds were sold at a premium, would be to use the premium money for construction, in the absence of prohibitory restrictions.

The latter entry above assumes that cash realized from the premium was originally entered in Cash for Construction. The logic of debiting the discount to Fund Balance—Construction lies in the fact that the sale of the bonds at a discount reduces the net amount available for expenditure and, therefore, should be charged to the account showing the authorization to spend. If it is both desirable and legal to defer the discount and amortize it through periodic interest charges, equivalent amounts of cash should be transferred from Interest Cash to Construction Cash; otherwise, the operation, of questionable merit at best, would have no value.

In general, two methods are available for dealing with a debit balance in the interest balance account. If the amount is sizable and growing from period to period, the situation would appear to call for an increase of the interest on assessments, the increased rate being sufficiently high to counteract the accumulated deficit as well as matching interest expense expected to accrue currently in the periods to follow. If the existing deficit is small, with current interest income and expense in approximate balance, it may be liquidated by a transfer from construction balance, if any; from other improvement funds which have an available balance; or from current revenue funds. These methods are recommended in preference to an increase in the interest rate on assessments, to avoid disturbing the schedule of payments to which property owners have bcome accustomed. If an interest deficit of $2,000 is balanced by a transfer from Construction Cash, the following entries might be made:

Cash for Interest Payments	2,000	
Cash for Construction		2,000
Fund Balance—Construction	2,000	
Fund Balance—Interest		2,000

Other statements of special assessment funds

The general nature of some special assessment fund statements has been illustrated in earlier parts of this chapter. These include balance sheets, statements of cash receipts and disbursements, and analyses of changes in fund balances. In this section will be illustrated a more complex form of cash receipts and disbursements statement and another statement unique to special assessment fund reporting, a comparison of unpaid installments with bond and interest requirements.

Illustration 10–9, using a form and figures from a published annual report, combines the showing of a statement form and content more complex than those shown in Illustration 10–7, with a demonstration of how information for two or more funds may be shown in one report.

Another type of cash statement emphasizing cash segregation by purpose (construction, payment of bonds, etc.) is shown in Illustration

Illustration 10–9

CITY OF LINDALE

Special Assessment Funds
Statement of Cash Receipts and Disbursements
Year Ended September 30, 1969

	Combined	*Street and Avenue*	*Special Sewer*
Cash balances at October 1, 1968:			
For construction	$ 324,635.97	$ 26,147.50	$ 298,488.47
For interest payments	6,219.94	1,032.93	5,187.01
	$ 330,855.91	$ 27,180.43	$ 303,675.48
Receipts:			
Sale of bonds—principal amount	$ 500,000.00		$ 500,000.00
Accrued interest on bonds sold	557.40		557.40
Collections on assessment receivables	318,163.81	$ 69,819.30	248,344.51
United States government securities matured	1,212,421.80	226,136.90	986,284.90
Interest on investments and receivables	23,926.91	3,946.87	19,980.04
Advances from other funds	92,193.93	15,090.17	77,103.76
Contribution from general debt and interest fund	8,045.23	205.70	7,839.53
Total receipts	$2,155,309.08	$315,198.94	$1,840,110.14
Total balance and receipts	$2,486,164.99	$342,379.37	$2,143,785.62
Disbursements:			
Capital outlays for construction	$1,287,845.19	$179,882.78	$1,107,962.41
Bonds retired	76,000.00	13,000.00	63,000.00
Interest paid on bonds	37,507.50	5,160.00	32,347.50
Cost of bond issues	1,065.98		1,065.98
Commissions to fiscal agents	176.00	25.50	150.50
United States government securities purchased	694,058.95	48,287.12	645,771.83
Refund of assessments receivable collections	36.69		36.69
Repayment of advances from other funds	91,983.07	14,880.00	77,103.07
Total disbursements	$2,188,673.38	$261,235.40	$1,927,437.98
Cash balances at September 30, 1969:			
For construction	$ 55,364.49	$ 24,324.67	$ 31,039.82
For debt retirement	242,127.12	56,819.30	185,307.82
Total Cash Balances	$ 297,491.61	$ 81,143.97	$ 216,347.64

10–10. The special function of this type of statement is to demonstrate that restrictions designed to govern the use of cash for specific purposes have been complied with. Disbursements would follow the same general classification—construction, bonds, interest payments.

Two other forms of cash receipts and disbursements statements are (1) the single-fund statement in which, by use of columns, the various kinds of receipts and disbursements are classified by purpose (construction, bonds, etc.), shown in Illustration 10–7; and (2) statements for two or more funds, with separation, by use of special headings, into incomplete and complete projects or funds. Illustration 6–5, in Chapter 6, shows

figures for one incomplete capital projects fund and another completed one. If there were two or more funds in either of the two categories, a superior heading should indicate which are incomplete and which complete, although a brief inspection should reveal which is one and which the other classification.

Some special assessment funds are organized with a provision that matches specific bonds with specific installments receivable. This was explained in an earlier section, "*Features of Special Assessment Bonds.*" An arrangement of this sort requires great care in the control of collections and making of payments. A kind of statement that helps in the

Illustration 10–10

	Combined	*Street and Avenue*	*Special Sewer*
Receipts:			
For construction:			
Sale of bonds			
Delinquent installments			
Foreclosures			
Total receipts for construction			
For bond payment:			
Governmental unit's share of cost			
Current installments			
Delinquent installments			
Total receipts for bond payments			
For interest payments:			
Accrued interest on bonds sold			
Interest on assessments			
Total receipts for interest payments			
Total: All Receipts			

management of this restrictive arrangement is one called "Comparison of Installments with Bonds and Interest." This kind of statement is shown in Illustration 10–11.

Although Illustration 10–11 bears considerable resemblance to a balance sheet, it is only an extraction of special assessment fund information which has been arranged in a sort of balance sheet form. Perhaps its best contribution is the showing of the present status of certain blocks of bonds owed by the fund. It is interesting to note that, in the absence of advance payment, a given maturity class of bonds does not begin to show activity until its maturity date approaches. At that time property owners begin to convert the current installment into cash and the matching bonds pass from a long-term to a current classification.

Termination of special assessment funds

Terminating the affairs of a special assessment fund is a twofold responsibility. One, bringing to a close the transactions and records for its

Illustration 10-11

CITY OF X

Special Assessment Fund
Comparison of Installments with Bonds and Interest
December 31, 1969

Explanation	*Total*	*Installment No.* 7	8	9	10
Assets					
Cash for bond payments	$ 300	$ 300			
Cash for interest payments	775	775			
Assessments receivable:					
Delinquent	3,200	3,200			
Deferred	60,000		$20,000	$20,000	$20,000
Interest receivable	200	200			
Total Assets	$64,475	$4,475	$20,000	$20,000	$20,000
Liabilities and Balance					
Accrued bond interest	$ 75	$ 75			
Due to general fund	1,000	1,000			
Bonds payable	62,500	2,500	$20,000	$20,000	$20,000
Balance—interest	900	900			
Total Liabilities and Balance	$64,475	$4,475	$20,000	$20,000	$20,000

expenditure transactions, is relatively simple of accomplishment in both time and manner. The other, settling its financing activities, may be attended by delay and some measure of difficulty. It may be that holders of some bonds cannot be located and some assessments cannot be collected until well after the scheduled date of payment or collection.

After all legitimate costs of the project, excluding those of a financial nature, have been recorded in Expenditures or Construction Expenditures, this account is closed to Fund Balance—Construction. If the project has extended into two or more fiscal periods, it may be that expenditures have been closed into Fund Balance—Construction at the end of each prior period, leaving a relatively small amount to be closed at the end of the final period. Should a balance of any amount remain in Fund Balance—Construction after all construction costs have been paid, it may be rebated to property owners and a participating governmental unit, if any; or it may be disposed of in any other legal way as determined by responsible persons. Disposing of deficits has already been discussed in the section entitled "*Construction Deficits.*"

Assuming that the project has involved the acquisition of a permanent improvement, rather than providing a current service, the question arises as to the amount to be capitalized as a fixed asset. Should it include the total cost of the project; or should property owners' contributions be

excluded, since they are supposed to increase the value of private property? The prevailing opinion appears to favor capitalization of both public and private contributions, with a clear indication in accounts of the general fixed assets group to show the amounts contributed by each. Assuming $50,000 had been spent on construction of a storm sewer, of which $15,000 was contributed by the city, the general fixed assets group would record the acquisition (in total) as follows:

Improvements Other than Buildings	50,000	
Investment in General Fixed Assets—Property Owners		35,000
Investment in General Fixed Assets—City's Share of Cost		15,000

As indicated previously, the financial operations of a special assessment fund include levying and collecting installments and managing payment of bonds. Also alluded to in an earlier paragraph is the fact that the financial operations are likely to continue long after the improvement has been acquired. One factor which may cause material delay in terminating the financial activities is difficulty in the collection of installments. Although the fund management is vested with power to enforce collections by foreclosure, if necessary, conditions may render such action inadvisable at the moment unless mandated by law. Delay in the installment collection process is likely to interfere with the orderly payment of bonds, it is clear, unless temporary financing can be obtained from other sources; but this is only a shifting of the liability. Even though cash is available for the payment of bonds, some delay may be encountered in paying them because of difficulty in locating bondholders, especially if the fund has been involved in financial troubles to the extent of casting serious discredit on the value of the bonds. In the event of failure to locate bondholders, the special assessment fund becomes virtually a trust fund, unless the bonds and cash for their payment can legally be transferred to a special trust fund for that purpose. The balance remaining after all liabilities have been paid or transferred—financing surplus, as it were—may be rebated or given to another fund; whereas a deficit would be disposed of as provided by law, probably through assistance from another fund.

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QUESTIONS

1. In the balance sheet of Central City's special assessment fund there is an account entitled Estimated Uncollectible Assessments Receivable—$21,000. This was not a service fund. Since special assessments for tangible improvements are liens upon the improved property, what circumstances might justify the allowance?
2. Does levying a special assessment upon residential property constitute revenue for the levying fund? For the municipality as a whole?
3. The legal advertisement of a special assessment fund of a southern city showed, among other things, for Block 2021: "Lot 10, Luckhardt, Chas. F. and Margaret P. $295.30." A recapitulation following the names listed in Block 2021 was as follows:

Total area	170,130 sq. ft.
Total cost	$6,369.02
Cost per sq. ft.	$.037436196

   Explain the above information, particularly the relationship between any two or more parts.
4. What is the major factor in causing special assessments against property to be more or less arbitrary?
5. Occasionally a governmental unit will account for public improvement special assessments as part of the general fund. Do you see any objection to that practice?
6. For a certain public improvement project a municipality levied assessments totaling $100,000. What occurrences or circumstances might cause that amount to be inadequate?
7. What is the justification for requiring a purchaser of property being sold for delinquency of payments to pay all installments at once, whereas the previous owner was allowed to pay installments periodically?
8. At January 1, 1969, the amount of all delinquent assessments for 1966,

1967, and 1968 had been recorded in the controlling account, Special Assessments Receivable—Delinquent. If you were directed to prepare a schedule in support of the balance of that account, state how you would go about getting the necessary details. Assume an assessment roll like the one illustrated in this chapter is being used.

9. A municipality is about to embark upon a sewer installation program in certain areas of the city. Should the project be financed by special assessment bonds or by general bonds to be retired from general fund revenue?

   a) Which would the rank-and-file citizen prefer?
   b) Which would the municipal administration prefer?
   c) Which would be preferred by landowners in the benefit area?

10. In a certain state, the special assessment fund procedure is employed for the construction of agricultural land drainage ditches. Original financing of these projects is by term bonds. A state law specifies that if installments are paid before their due dates, interest continues to accrue until the due date. Why?

PROBLEMS

1. In 1969, the town of Helmsburg initiated a program of sidewalk construction and street curb improvements to be financed mainly by assessments against benefited properties. This project was designated as No. 84. Engineering and construction estimates placed the total cost of the project at $600,000, of which the city government agreed to contribute $50,000.

   Assessments against property owners, payable in installments of annually increasing amounts over a period of eight years, called for $40,000 in the first installment, for construction cash; with the remaining $510,000 to be deferred, with proceeds to be used for bond retirement. Provision for current financing of contract costs included a bond issue of $510,000 to be sold early in 1970.

   During 1969 the following transactions occurred in special assessment fund No. 84:

   (1) The governmental unit's expected contribution was recorded.
   (2) The main construction contract was sold (let) for a price of $530,000.
   (3) $20,000 cash was received as a short-term loan by the Helmsburg general fund.
   (4) Engineering and other "early stage" costs were paid in the amount of $8,000.
   (5) All assessments were levied, with first payments due in 1970. ($40,000 current.)

   You are required to do the following things:

   a) Record the above transactions on a columnar worksheet, leaving two lines for Fund Balance—Construction. (This may be preceded by journal entries on a separate sheet.)
   b) In the second pair of money columns on your worksheet, enter the balances of the various accounts, to construct a trial balance at December 31, 1969.
   c) In the third pair of money columns, make the closing entry or entries for 1969; and in the fourth pair show an after-closing trial balance for December 31, 1969.

(5) Departing somewhat from general practice, amounts spent to date on incomplete projects were shown in the balance sheet as Construction Projects in Process, with $465,417 for the former and $527,966 for the latter.
(6) Warrants payable outstanding against the former fund were only $86 and $1,337 for the latter.
(7) The two owed retained percentages on contracts of $5,839 and $12,509, respectively.
(8) Refunds payable were $29 for the former and $1,653 for the latter.
(9) Only the latter fund owed other funds, and that in the amount of $1,217.
(10) Thoroughfares had a $1,000 matured bond payable outstanding, along with $1,367 matured interest. Sewers owed $942 matured interest payable. No interest expense accrued but not due was shown.
(11) Bonds payable, not matured, owed by the two totaled $3,413,000 for the former and $7,766,000 for the latter.
(12) Encumbrances outstanding were $172,159 and $236,913, respectively.
(13) Each fund showed a single balance, without reference to construction, bonds, and interest components.

You are required to do the following things:

a) Arrange the above information in the form of a combined columnar balance sheet with "combined," "thoroughfare," and "sanitary sewer" columns.

b) State what conclusion you draw about the relative size of unpaid assessments receivable and the estimated uncollectible accounts.

4. The city of Wendover had what was called "The Special Assessment Fund." At June 30, 1969, its adjusted trial balance was as follows:

	Debit	*Credit*
Cash	$ 21,440	
Assessments receivable—delinquent	3,800	
Estimated uncollectible assessments		$ 2,600
Assessments receivable—deferred	75,000	
Due from other funds	1,900	
Accrued expense		960
Vouchers payable		5,900
Contracts payable—retained percentage		5,750
Appropriations		100,000
Improvements authorized	5,000	
Bonds authorized—unissued	25,000	
Bonds payable		100,000
Fund balance		4,590
Revenue from service		29,000
Interest revenue		420
Encumbrances	4,800	
Reserve for encumbrances		4,800
Expenditures	27,800	
Construction expenditures	88,030	
Estimated loss on uncollectible assessments	780	
Interest expense	470	
	$254,020	$254,020

Investigation revealed that this structure actually contained a construction special assessment fund initiated in August of 1968 and a special assessment electric fund which had been in existence several years, to supple-

c) Record the sale assuming that the purchaser was required to pay past-due and current claims against the property and to assume liability for the noncurrent indebtedness.

d) Record the facts assuming that no satisfactory bids were received and the special assessment fund took provisional title to the property.

e) Record sale of the property after the special assessment fund had taken provisional title to it, the consideration being just the total charges against it.

f) Record transfer of the property, after provisional title had been taken, as in (*d*), to the city park system, with no consideration.

6. Late in 1968, the city of Dalton established a special assessment fund which operated on a limited scale during that year. The total authorization was for $225,000. A charge of $104,000, payable in 1970, was levied against the city; and special assessments totaling $111,000 were levied against individually owned properties. Of the $111,000, the amount of $15,000 was due in 1968 and the remainder was due in four equal annual installments beginning in 1969. Only collections from the first installment and proceeds from the sale of bonds were to be used for construction. A before-closing trial balance of the fund at December 31, 1969, was as follows (accounts arranged alphabetically):

CITY OF DALTON

Storm Sewer Special Assessment Fund
Trial Balance, December 31, 1969

	Debit	*Credit*
Assessments receivable—delinquent (1968)	$ 1,000	
Assessments receivable—current (1969)	2,000	
Assessments receivable—deferred	72,000	
Bond interest payable		$ 750
Bonds payable		200,000
Cash for bond payments	22,000	
Cash for construction	62,000	
Cash for interest payments	1,400	
Construction expenditures	85,000	
Contracts payable		35,000
Contracts payable—retained percentage		9,000
Encumbrances	55,000	
Governmental unit's share of cost	104,000	
Interest expense	9,750	
Interest receivable	70	
Interest revenue		5,470
Reserve for encumbrances		55,000
Fund balance—construction		204,000
Fund balance—interest		5,000
Temporary investments (at cost)	100,000	
	$514,220	$514,220

a) You are required to divide the foregoing accounts into three self-balancing groups: (1) those related to construction, (2) those related to bond payments, and (3) those related to interest payments. Tempo-

b) Calculate to the nearest tenth of one percent the rate of rebating which should be used in determining the amount of rebate due to a given property owner. (In practice, the rate would need to be carried somewhat farther than tenths of a percent for satisfactory results.)

8. In 1967, the town of Lisbon began organization of a special assessment project to finance a major improvement of streets in one area of the town. Preliminary estimates placed the approximate cost at $860,000. A project of that amount was legally approved by all parties concerned. At the same time, an $800,000 issue of term bonds was approved.

(1) Early in 1968 a contract for the major part of the job was let in the amount of $820,000.
(2) $30,000 was borrowed on an interest-bearing note.
(3) The bond issue was sold in total at a net price of $804,000, cash from the premium being designated for bond retirement.
(4) A bill for $250,000 on the main contract was received and recorded.
(5) Investments were purchased from construction cash at a cost of $500,000, with $5,000 added for accrued interest purchased.
(6) The contractor's bill, less a 5 percent retention, was paid.
(7) A special assessment of $850,000 was levied against property owners in the benefit district. A current installment of $50,000 was for construction, the remainder for bond retirement.
(8) $20,000 cash interest was collected on investments. All but the accrued interest purchased was designated for interest payment.
(9) Interest paid on bonds totaled $13,000.
(10) $18,000 was paid for miscellaneous construction expense which had not been encumbered.
(11) Collections on the current installment of assessments totaled $47,000, with $5,600 interest.
(12) Uncollected current assessments were reclassified.

You are required to do the following things:

a) Record the foregoing transactions, either by journalizing and posting or by direct posting from transactions.
b) Prepare a trial balance for December 31, 1968.
c) Make closing entries.
d) Prepare a balance sheet.
e) Prepare an analysis of changes in fund balance for 1968. Make this a three-column statement for Fund Balance—Construction, Fund Balance—Bonds, and Fund Balance—Interest. You may head the bond column with an $800,000 authorization if you wish.

The following transactions occurred in 1969:

(1) Encumbrances reversed in 1968 were restored.
(2) $80,000 of assessments were classified as current.
(3) Miscellaneous construction expenditures of $9,000 (not encumbered) were paid in cash.
(4) A bill for $290,000 was received from the contractor.
(5) Investments which cost $200,000 were sold for $203,000 plus $2,500 for interest. It was directed that all cash received should be classified as construction cash.
(6) $76,000 of current and $1,000 of delinquent assessments, plus $34,000 interest revenue, was collected.
(7) The contractor's latest bill, less a 5 percent retention, was paid.

(8) The assessment fund management succeeded in buying $10,000 par value of the fund's bonds at 101 and $300 of accrued interest.
(9) As a result of a wage settlement ending a prolonged strike, the contract was amended, as provided in the contract, to cover additional wage costs which would accrue from the settlement.
It was agreed that $30,000 would be added to the contract price, and both the project authorization and the contract were increased by that amount. Also, $30,000 was added to the deferred assessments and an additional bond issue was authorized.
(10) $36,000 interest expense was paid on bonds.
(11) A bill was received from the contractor for $80,000.
(12) The note payable and $500 interest were paid from construction cash, the interest to be charged to Fund Balance—Construction.
(13) Unpaid current assessments were reclassified.

You are required to do for the end of 1969 the same things required for the end of 1968.

9. Following approval by a majority of affected property owners, the municipal authorities of Speed City authorized, on July 12, 1968, an assessable improvement project expected to cost approximately $215,000. Temporary financing of the project was provided by a bond authorization of $215,000. The bonds were dated August 1, 1968, and bore interest at 4 percent, payable annually on August 1. Twelve annual maturities of $17,000 each and a final payment of $11,000 were provided for, with the first maturity on August 1, 1969.

Assessment rolls totaling $180,000 were prepared and reported to property owners, with an additional noninterest-bearing charge of $40,000 to the city (credit total to Fund Balance—Bonds). Assessments are payable in 10 annual installments, with interest at 6 percent from September 1, 1968 on unpaid balances. Prepayment of installments is not permitted. Current installments and interest for the preceding year on unpaid installments become due and are recorded on January 1 of each year, beginning with 1969. Each year's current installment of assessments receivable is recorded on the date it becomes due and is reclassified as delinquent if not paid by the end of the year. The city's share of cost matures at the same rate and on the same date as assessments against property owners, but is not formally classified into installments.

The entire bond issue was sold to an underwriting syndicate on November 1, 1968, at par and accrued interest. Proceeds of the bonds were used to pay for the project, which cost a total of $213,500 and was paid for prior to August 1, 1969.

In February of 1969 a rebate of all charges against one property was made because of proof that the property was situated outside the legally advertised benefit district. An assessment of $1,000 had been levied against this property.

By August 1, 1969, $16,450 of the current year's installment, the 1969 installment of the city's share of cost, and $3,551 interest due on January 1, 1969, had been collected. Bonds and interest due on that date were paid. It may be assumed that the special assessment fund has one bank account for all cash and that temporary overdrafts are allowed in the Cash for Interest ledger account.

You are required to do the following things:

3. Assets of the kinds commonly described as fixed assets of mercantile and manufacturing concerns are usually found among enterprise funds and are shown in enterprise fund balance sheets. However, these long-term assets used in carrying on enterprise operations are often called plant and equipment. For convenience of discussion, in this chapter and the next the term "fixed assets" will be used to mean the same as plant and equipment.

4. Fixed, or long-term, liabilities are included in enterprise accounts and shown in their balance sheets. These liabilities, although sometimes carrying the secondary pledge of the government's full faith and credit, are primarily secured by claims against the fund's earnings and in most instances are liquidated from fund revenues, against which they may have a preferred claim.

5. Depreciation of plant and equipment is an important item among enterprise fund costs. Because of the large aggregate of fixed assets required by most enterprise activities, depreciation is large in amount and must be taken into consideration in measuring gain or loss. To assure continuity of service, governmental enterprises are frequently required to supplement depreciation allowances by accumulation of so-called "depreciation funds," which are not funds in the common usage of that term but rather reservations of cash or other liquid assets to guarantee availability of resources for replacements as required.

6. Enterprise accounts frequently contain one or more secondary groups of accounts, which are primarily segregations of assets used for some purpose associated with but not included in the primary activity of the enterprise.

7. Although still required by law in some jurisdictions, the use of budgetary accounts is not recommended for the control of enterprise operations. It is believed that the commercial type of revenue and expense accounts used in enterprise accounting provide control that is more effective for such activities than would be obtained from the conventional budgetary control accounts. This does not preclude the use of budgets of the usual commercial type, but applies only to formal budgetary accounting. Most of the following discussion and illustrations of enterprise funds will assume the absence of budgetary accounts.

By far the most numerous and important enterprise services are those commonly referred to as utilities. To facilitate discussion, in this and the next chapter, funds for the conventional utility services (electricity, gas, water, transportation, etc.) will be referred to as *utility* funds, meaning a major group of enterprise funds.

Initiation of enterprise funds

Although governments may acquire enterprise plants and properties through original construction and purchase, it may be safely asserted that in the majority of cases public ownership has been attained through acquisition of properties already in operation, either through arm's-length negotiation with present owners or through exercising the government's right of eminent domain. In most instances, public ownership has been resorted to for one or the other of two purposes: (1) to provide service

Accounting for the acquisition of a utility from private owners involves two general requirements, the second of which is attended by somewhat greater complications than the first. These two general requirements are as follows:

1. Accounting for money raised to obtain possession of property.
2. Accounting for the several assets and liabilities received and assumed, respectively, in the process of acquisition.

To illustrate principles of accounting for the acquisition of a going utility plant, it will be assumed that the initial financing, referred to above, was provided by the town of Rossburg for the purchase of a privately

Illustration 11–1

ELKO ELECTRIC CORPORATION

Trial Balance
September 30, 1968

	Debit	*Credit*
Structures and improvements	$210,000	
Allowance for depreciation—structures and improvements		$ 70,000
Equipment	60,000	
Allowance for depreciation—equipment		15,000
Land	16,000	
Cash	9,000	
Accounts receivable	18,000	
Estimated uncollectible accounts		1,000
Materials and supplies	1,600	
Prepaid expenses	800	
Vouchers payable		3,500
Accrued expenses		400
Mortgage payable		45,000
Capital stock—common		173,000
Retained earnings		7,500
	$315,400	$315,400

owned electric utility, already in operation; and that the necessary money has already been transferred to the new electric fund. To reduce the number of accounts required, it will be assumed that the utility owns no generating plant or equipment but purchases current from a second utility. Immediately prior to transfer, it will be assumed, the trial balance of the utility was as shown in Illustration 11–1.

The trial balance in Illustration 11–1 shows a total net worth of $180,500, based on the book value of the assets owned. However, it is not common for transfers from private to public ownership to be effected on the basis of recorded net worth. Either because the appraised sound value of the utility property is in excess of book value or because of a tendency to allow private owners a premium on property appropriated for public use, the amount paid is likely to exceed the net worth per the books.

Illustration 11–2

TOWN OF ROSSBURG

Electric Utility Fund
General Journal
September 30, 1968

Account Titles and Explanations		
Cash	205,000	
Municipality's Contribution		205,000
To record municipality's contribution of electric utility's purchase price.		
Structures and Improvements	210,000	
Equipment	60,000	
Land	16,000	
Electric Plant Acquisition Adjustment	24,500	
Cash	9,000	
Accounts Receivable	18,000	
Materials and Supplies	1,600	
Prepaid Expenses	800	
Allowance for Depreciation—Structures and Improvements		70,000
Allowance for Depreciation—Equipment		15,000
Estimated Uncollectible Accounts		1,000
Elko Electric Corporation, Vendor		253,900
To record assets purchased from Elko Electric Corporation.		
Elko Electric Corporation, Vendor	48,900	
Vouchers Payable		3,500
Accrued Expenses		400
Mortgage Payable		45,000
To record liabilities assumed from Elko Electric Corporation.		
Elko Electric Corporation, Vendor	205,000	
Cash		205,000
To record payment for net assets acquired from Elko Electric Corporation.		

Thus, ownership of the Elko Electric Corporation property is likely to cost the town of Rossburg in excess of $180,500; and for illustrative purposes, it will be assumed that the purchase price was $205,000.

The predominant rule in utility regulation and related accounting practice is that utility plant shall be stated in the books of account at cost (less amortization) to the owner who first devoted the property to public use. Among utilities, this has the technical name of original cost.[1] Any premium paid over and above such cost less amortization is in the general nature of payments for goodwill by nonutility enterprises. But utilities enjoy monopoly privileges and are subject to corresponding restrictions. One of the restrictions is that earnings shall not exceed a fair rate of return. Since goodwill is the capitalized value of excess earnings, utilities

[1] Federal Power Commission, *Uniform System of Accounts Prescribed for Public Utilities and Licensees* (Washington, D.C.: U.S. Government Printing Office, 1961), p. 3.

can have no goodwill (in the accounting sense). Premium on plant purchased must be accounted for under some other caption. The title recognized and commonly used to record such a premium is Electric Plant Acquisition Adjustment or some variation thereof.

Terms of utility purchases may vary widely: The private owners may retain all cash or transfer it in total; they may transfer the organization net of certain liabilities or may require the new owners to assume all; other adjustments may be agreed upon. Likewise, accounting procedures followed in recording the transfer may take a number of different forms. In the present illustrations, it is assumed that the total assets and liabilities of the Elko Electric Corporation were transferred in consideration of $205,000 cash, the $24,500 premium over net book equity to be considered as an acquisition adjustment. (See Illustration 11–2.)

Illustration 11–3

TOWN OF ROSSBURG

Electric Utility Fund
Trial Balance, September 30, 1968

	Debit	*Credit*
Structures and improvements	$210,000	
Allowance for depreciation—structures and improvements		$ 70,000
Equipment	60,000	
Allowance for depreciation—equipment		15,000
Land	16,000	
Electric plant acquisition adjustment	24,500	
Cash	9,000	
Accounts receivable	18,000	
Estimated uncollectible accounts		1,000
Materials and supplies	1,600	
Prepaid expenses	800	
Vouchers payable		3,500
Accrued expenses		400
Mortgage payable		45,000
Municipality's contribution		205,000
	$339,900	$339,900

Entries on the transferor's books will not be illustrated.

It will be noted that the last entry in Illustration 11–2 merges the two entries preceding it with the first entry in which the electric fund recorded a receipt of cash that gave it financial existence. A trial balance of the fund at this point would appear as shown in Illustration 11–3.

The trial balance in Illustration 11–3 shows the titles and balances of accounts to be opened in the municipality's electric utility books. It is desired to call attention to four facts about accounts composing the fixed assets group, as follows:

1. It will be noted that plant and equipment are listed ahead of other assets. This conforms to practice that is prevalent, but not dominant, in utility ac-

counting and is justified because utilities specialize in the rendering of service through the employment of fixed assets. From that source comes the major portion of utility income. Management of fixed assets and fixed liabilities in utility operation far overshadows management of current assets and liabilities.

2. When a going utility is sold for cash it is customary for its present cash to be retained and the selling price reduced correspondingly.

3. Although fixed assets acquired have been recorded under the titles used by the transferor, this may not always be desirable, for the reason that they may have been improperly classified on the previous owner's books. On the new owner's books, they should be recorded in compliance with classifications recommended by whatever utility commission has jurisdiction in the territory served. Thus, "equipment" might be found to include such a diversity of items as to require two or more accounts.

4. In nonutility accounting practice, acquisition of a partly depreciated asset may be recorded in an account for cost and another for accumulated depreciation, or in a single account showing unamortized cost in one figure. Because of the importance of original cost in utility regulation, the first method is required for utilities.

Accounting for routine operations

The expression, "routine operations of a utility," as used here, includes the rendering of service and collection of bills for service rendered. Rendering service requires expenditures for salaries and wages; for materials and supplies and, usually, for a certain amount of contractual service received; and for collections of amounts billed. Utilities ordinarily engage in numerous other types of incidental activities, but these will be discussed under special captions or illustrated through problems. In the present section, only one revenue account will be employed; and only a few of the many expense titles required in utility accounting will be used. Actually, to be adequate for effective management, utility accounting requires the use of diversified revenue accounts and even more highly diversified expenditure accounts; but the details of these practices will be set forth in the next chapter. Only the most frequent types of transactions, in summary form, will be presented at this time; and it will be assumed that they are related to the town of Rossburg electric fund trial balance, to be found in Illustration 11-3.

4. Prepaid Expenses	900	
Vouchers Payable		900
Insurance premiums vouchered during the year totaled $900.		
5. Repairs and Maintenance	7,600	
Vouchers Payable		7,600
Repairs and maintenance costs, other than for personal services, vouchered during the year.		
6. Materials and Supplies	4,500	
Vouchers Payable		4,500
Materials and supplies invoices vouchered during the year.		
7. Taxes	1,100	
Vouchers Payable		1,100
Various taxes vouchered for payment during the year.		
8. General Expense	2,600	
Vouchers Payable		2,600
To record the amount of general expense vouchered during the year.		
9. Repairs and Maintenance	4,900	
Materials and Supplies		4,900
Materials and supplies issued on requisitions during the year.		
10. Fuel	21,000	
Water	900	
Vouchers Payable		21,900
Cost of fuel and water vouchered during the year.		
11. Interest Expense	1,800	
Vouchers Payable		1,800
Interest on mortgage payable for the year.		
12. Cash	103,000	
Accounts Receivable		103,000
Collections on customers' bills during the year.		
13. Equipment	15,000	
Vouchers Payable		15,000
Purchase of equipment.		
14. Estimated Uncollectible Accounts	1,300	
Accounts Receivable		1,300
Accounts considered uncollectible were written off.		
15. Vouchers Payable	99,000	
Cash		99,000
Payments on vouchers during the year.		

At September 30, 1969, a trial balance of the electric utility fund would appear as shown in Illustration 11–4.

Adjusting entries

As stated previously, accurate determination of periodic net income or net loss is important to the efficient management of utilities. Thus, it follows that revenue and expense account balances in the utility statement of income and expense should reflect amounts of revenue earned and amounts of expenses incurred during the period represented. Adjusting entries are necessary at the ends of fiscal periods to obtain the desired degree of accuracy. Utility adjusting entries are comparable in subject matter and form to commercial-type adjustments.

	Debit	Credit
1. Materials and Supplies	100	
Repairs and Maintenance		100
To adjust the Materials and Supplies account to agree with the physical inventory of materials and supplies.		
2. General Expense	800	
Prepaid Expense		800
To adjust the Prepaid Expense account to agree with the schedule of unexpired insurance premiums at September 30, 1969.		
3. Depreciation—Structures and Improvements	8,000	
Depreciation—Equipment	7,500	
Allowance for Depreciation—Structures and Improvements		8,000
Allowance for Depreciation—Equipment		7,500
To record depreciation of structures and improvements and equipment for the year.		
4. Amortization of Electric Plant Acquisition Adjustment	900	
Allowance for Amortization of Electric Plant Acquisition Adjustment		900
To amortize part of premium paid on acquisition.		
5. Loss on Uncollectible Accounts	2,100	
Estimated Uncollectible Accounts		2,100
To record the estimated loss of 2 percent of billings for the year.		
6. Taxes	300	
Accrued Expenses		300
To record taxes accrued but unpaid at the end of the year.		
7. General Expenses	200	
Accrued Expenses		200
To record general expenses accrued but unpaid at the end of the year.		

Discussion of the subject matter of entry 4 will be deferred until the next chapter, in which special attention is given to amortization of other long-term costs.

After the posting of the foregoing adjusting entries, a trial balance of the electric utility ledger would appear as shown in Illustration 11–5.

Statements

From the adjusted trial balance at September 30, 1969 may be prepared an operating or income and expense statement, as well as a balance sheet. Schedules are widely employed to give details of some groups of income or expense which appear as a total figure in the operating statement, but discussion of these supplementary statements will be deferred until the next chapter. Another type of statement found among utility financial reports is the statement of changes in retained earnings. It follows closely the commercial form of the statement of the same name. As in commercial practice, utilities use this statement for conveying to management and other interested parties an explanation of changes in the utility's retained earnings during the period ended on a given date.

The statement of income and expense for the town of Rossburg electric utility (Illustration 11–6) will give a general idea of the typical operating statement of a utility, particularly its similarity to the compara-

Illustration 11–6

TOWN OF ROSSBURG
Electric Utility Fund
Statement of Income and Expense
For the Year Ended September 30, 1969

Operating revenues:		
Sales of electric energy		$105,000
Total operating revenues		$105,000
Operating expenses:		
Salaries and wages	$47,900	
Repairs and maintenance	12,400	
Depreciation of structures and improvements	8,000	
Depreciation of equipment	7,500	
Amortization of electric plant acquisition adjustment	900	
Fuel	21,000	
Water	900	
General expense	3,600	
Taxes	1,400	
Loss on uncollectible accounts	2,100	
Total operating expenses		105,700
Operating income (loss)		$ (700)
Nonoperating expense:		
Interest expense	$ 1,800	
Total nonoperating expenses		1,800
Net Income (Loss)		$ (2,500)

tions for profit. However, since business and the accounting profession are striving to replace "Earned Surplus" with a more meaningful title, such as "Retained Earnings," employment of the title (Earned Surplus) by governmental utilities seems to be of doubtful wisdom. While recognizing the merits of other titles, "Retained Earnings" will be used in this chapter and the next because it has been approved by the National Committee on Governmental Accounting.

Closing and post-closing entries

Following the practices of commercial enterprises, utility funds also require entries (1) to close all nominal accounts for the year and (2) to transfer net gain or loss to Retained Earnings. This can be done in one entry (from Illustration 11–6), debiting each account having a credit balance, crediting each account having a debit balance and debiting the net loss to Retained Earnings. If preferred, closing may be done in two or more entries. If post-closing entries are made as of October 1, 1969, the adjusting entries to be reversed are Nos. 6 and 7.

Secondary groups of accounts

As stated previously, utility fund accounts are often characterized by the inclusion among their number of certain secondary groups or segrega-

Illustration 11–7

TOWN OF ROSSBURG

Electric Utility Fund
Balance Sheet, September 30, 1969

Assets

Fixed Assets:			
Land			$ 16,000
Structures and improvements		$210,000	
Less: Allowance for depreciation		78,000	132,000
Electric utility acquisition adjustment	$24,500		
Less: Allowance for amortization	900		23,600
Equipment		$ 75,000	
Less: Allowance for depreciation		22,500	52,500
Total Fixed Assets			$ 224,100
Current and Accrued Assets:			
Cash		$ 13,000	
Accounts receivable	$18,700		
Less: Estimated uncollectible accounts	1,800	16,900	
Materials and supplies		1,300	
Prepaid expenses		900	32,100
Total Assets			$ 256,200

Liabilities, Contributions, and Retained Earnings

Fixed Liabilities:		
Mortgage payable	$ 45,000	
Total Fixed Liabilities		$ 45,000
Current Liabilities:		
Vouchers payable	$ 8,200	
Accrued expenses	500	
Total Current Liabilities		8,700
Total Liabilities		$ 53,700
Contributions and Retained Earnings:		
Municipality's contribution	$205,000	
Retained earnings (deficit)	(2,500)	
Total Contributions and Retained Earnings (deficit)		202,500
Total Liabilities, Contributions, and Retained Earnings (deficit)		$256,200

tions of accounts which in themselves bear some resemblance to funds.

The more common among these groups are as follows:

1. Sinking fund accounts.
2. Customers' deposits accounts.
3. Replacement fund accounts.
4. Pension fund accounts.
5. Construction accounts.

They will be discussed in the above order.

Sinking fund group

Accounts in this group are used to record the direct transactions in which a utility engages to assure availability of assets and net worth to

discharge long-term indebtedness at maturity, without interruption of the utility's normal service to its patrons. The transactions consist principally of segregation of assets to assure their availability in liquid form at the maturity of the indebtedness and of reservations of earnings so that payment of the debt may be made without disturbance of the utility's working capital. As in private corporation practice in sinking fund management, utility sinking funds are not operated in strict compliance with an actuarial schedule of required accumulations. The preparation of such a schedule is recommended as a standard of performance, but the Reserve for Retirement of Sinking Fund Bonds is not required to show at all times a balance exactly equal to the amount shown as required to be accumulated according to the accumulation schedule. If a utility's bonds to be retired are acquired by its sinking fund, it is not necessary that they be kept alive to enable complete compliance with an actuarial schedule. The schedule of accumulation, as stated previously, is more of a memorandum in nature; and it may be adjusted, with little formality, to give effect to retirement of the bonds purchased.

If it be assumed that $20,000 cash is transferred from operating cash to the sinking fund, the entry would be as follows:

Sinking Fund Cash	20,000	
Cash		20,000

To register in the utility's net worth the fact that an amount of assets has been removed from operating capital to a restricted form, the above entry should be supplemented as follows:

Retained Earnings	20,000	
Reserve for Retirement of Sinking Fund Bonds		20,000

Although the method illustrated for establishing a retained earnings reserve is almost universally followed in commercial accounting, the same is not true for governmentally owned utilities. Laws or other regulations may require that the transfer be made before the net income for the period is closed to Retained Earnings. In such a case the transfer is made after all revenues and expenses have been closed into the summary account but before the net gain is transferred to Retained Earnings. This method has the result of making a two-way distribution of net income, one part going to the reserve, the other to Retained Earnings. Transfers to reserves are sometimes covered by appropriations. When this condition exists, it is more logical for the transfer to be made from the Profit and Loss (or Operating) summary account than from Retained Earnings.

Investment of sinking fund cash, assuming the purchase of $200 of accrued interest, would be recorded as follows:

Sinking Fund Investments	19,000	
Interest on Sinking Fund Investments	200	
Sinking Fund Cash		19,200

Receipt of interest on the investments would be recorded as follows:

Sinking Fund Cash	500	
Interest on Sinking Fund Investments		500

If sinking fund investments are acquired at a premium or discount, which is likely to be the case, periodic net earnings on the securities should be adjusted for amortization of premium or discount.

At the end of the fiscal period, the net amount of earnings recorded above, $300 (possibly adjusted for accrued income), would appear in the utility's statement of income and expenses and in the closing entries would be transferred to Retained Earnings. It is true that the net earnings could be closed to the Reserve for Retirement of Sinking Fund Bonds, but such procedure is not mandatory because the utility sinking fund is not of the trust fund type but is primarily an accounting and financial device. The reserve for retirement account is ordinarily increased by direct transfers from Retained Earnings, as illustrated in connection with the establishment of the group.

In the utility fund balance sheets, accounts of the sinking fund group might be displayed as follows, assuming $40 accrued interest:

Assets

Sinking fund:		
Cash	$ 1,300	
Investments	19,000	
Accrued interest on investments	40	
Total Sinking Fund		$20,340

Liabilities, Reserves, and Retained Earnings

Reserve for retirement of sinking fund bonds (actuarial requirement, $22,000)	$20,340

The use of utility sinking fund assets for their intended purpose of long-term debt liquidation requires, first, that noncash assets be converted to cash form. After the debt has been paid, the Reserve for Retirement of Sinking Fund Bonds should be debited, with an offsetting credit to Retained Earnings.

Customers' deposits accounts

Utilities may follow the practice of requiring patrons to make deposits to assure the recovery of meters or to minimize the risk of loss on

collection of utility service bills. Such deposits should be accounted for by formal contract between the two parties, and interest may be allowed by the utility on the accumulated amount of the deposit.

Assets related to patrons' deposits may be segregated, managed, and accounted for in a manner similar to the procedure followed for sinking fund assets. That is, cash received may be invested and income earned on the investments held. There is less reason for segregating customer deposits assets than for segregating sinking fund assets because customer deposits will be paid off more or less on a day-by-day basis as individual customers discontinue taking service; and since the amount of each deposit is relatively small, operating cash may be used for the refund, if necessary. Customers' deposits equities are ascertained liabilities and should not be designated as a "reserve." Customers' Meter Deposit Cash (or other asset) and Customers' Meter Deposits Payable, or other similar titles, are used for customers' deposits accounting. Periodically, the amounts of the equities should be increased by the amounts of interest accumulated since the last adjustment. Interest on investments of customers' cash deposits is an income of the utility, and interest on amounts due to customers is a utility expense. The utility may pursue no definite plan of investing amounts deposited by customers, but if interest is allowed, each customer must be credited with his share, regardless of how the utility manages the assets represented by his deposit.

Replacement fund

Utilities have the responsibility of providing uninterrupted service of the kind and amount customers require. This responsibility entails the necessity of maintaining the physical plant in good operating condition. To accomplish this, utilities must not only maintain a sufficiency of total assets to meet all requirements, but some assets must be in such liquid form that they are readily available on short notice for use in replacement of assets that have reached the end of their serviceable life. Establishment of depreciation allowances in adequate amounts prevents impairment of capital through depreciation, but it gives no assurance that cash or other liquid assets will be available for immediate replacement of fixed assets fully depreciated or requiring substitution for other reasons.

Replacement funds, using the term in the sense of asset segregation, may consist of cash, securities, or other similar items which have been set aside to assure availability when needed. The common source of assets for establishment of the group is operating cash. Purchases and sales of investments, earning of interest, and other related transactions would be accounted for in the same manner as for utility sinking fund assets. Since replacement fund assets are not available for use in the utility's main operations, retained earnings should be appropriated to the amount of assets reserved for replacement use. Entries to record the establishment of a replacement fund or group of accounts ordinarily follow the pattern illustrated in these two entries:

Replacement Fund Cash	10,000	
Cash (Operating)		10,000
Retained Earnings	10,000	
Reserve for Replacement		10,000

If interest is earned on replacement fund investments, it should be included in the utility's income and expense statement and transferred, among the closing entries, to Retained Earnings. Increase of replacement fund assets should be accounted for by two entries, similar to those that recorded establishment. Replenishment of replacement fund cash follows the standard pattern for replenishing petty cash and other imprest funds.

Pension fund

Municipally owned utilities may operate pension funds for the benefit of employees. Some utility employee pension funds are circumscribed by legal requirements which actually separate them from the utility itself, in which case the pension fund becomes a separate legal and financial entity of the trust fund type. If the pension fund is an intra-utility arrangement, its organization and operation will follow the replacement fund procedure, in that it may represent a special grouping of assets for restricted purposes and requires a reservation of retained earnings to indicate the nonavailability of certain assets for general purposes.

Construction fund

Owing to the widespread increase in demand for utility service, expansion of plant through additions or betterments is a common experience in the utility field. Small-scale projects or gradual expansion may be carried on without special financing, with little modification of, or departure from, normal accounting routine. However, large-scale projects which require special financing and special managerial handling call for the application of special accounting procedures. Cash received from bond issues must be clearly identified, expenditures on the project must be definitely separated from operating expenses, and liabilities to be liquidated from construction cash must be appropriately captioned. To facilitate the separation of construction transactions from operating transactions, a special construction group of accounts is employed.

For purposes of demonstrating the operation of what may be called "expansion" accounts, a few typical entries will be given, assuming that budgetary entries are not to be used:

1. Construction Cash	396,000	
Discount on Bonds	4,000	
Bonds Payable		400,000
To record the sale of $400,000 par value of bonds at 99, to finance plant expansion.		

Concerning the above entry and the subsequent handling of the accounts used therein, the following observations may be made:

a) A special cash account has been used to separate construction cash from operating cash. The title "Bond Cash" is sometimes used. Separation of construction cash from operating cash is convenient but not imperative.

b) Discount on the bonds will be accounted for in much the same manner followed by commercial enterprises. All transactions associated with the bond issue will be recorded in the utility fund, and discount or premium amortization may be fused with periodic charges for nominal interest.

c) The bond liability is retained in the utility fund and will be paid off directly from utility fund assets.

Since only proprietary transactions are being illustrated, no entry will be made for the issuance of purchase orders or for commitments in other forms. Expenditure transactions will be recorded following the receipt of materials, supplies, or services. An entry for a typical expenditure transaction would be as follows:

2. Construction Work in Progress	29,000	
Vouchers Payable—Construction		29,000
To record liability for engineering and architectural service received.		

Identification of the liability account as a construction item promotes accuracy in payment, since the claim must be paid from construction cash. If it is not desired to operate a separate controlling account, individual vouchers which are to be paid from construction cash may be marked with significant numbers, letters, or other devices to distinguish them from vouchers to be paid from operating cash. Concerning the debit member of the above entry, if properties of two or more kinds are under construction at the same time, detailed records will have to be kept in order to permit accurate capitalization of costs under appropriately descriptive titles.

The entry immediately above is typical of those to be recorded for most expenditures made directly by the utility for costs applied to the project. Part or all of the direct expenditures upon the project may be made by an outside contractor, to whom the utility will have liability and make payments, in the manner characterizing similar transactions in a bond fund. An illustrative entry for such a transaction would be as follows:

3. Construction Work in Progress	63,000	
Contracts Payable		63,000
To record liability for construction completed, based on architect's certificates presented. (Liquidation of Contracts Payable has been illustrated in previous chapters.)		

During the construction period a utility may contribute to the cost of construction by the use of operating assets and personnel. These contributions may include payment of what later proves to be construction costs out of operating cash, use of operating materials and supplies to further construction, and use of operating equipment and personnel for the same purpose. When these incidents occur, the major problem is to determine the *amount* of the capital expenditure; correction requires only a transfer entry, as follows:

4. Construction Work in Progress	740	
Salaries and Wages		740
To charge the former account with the services of operating personnel for time spent on the construction project.		

Closely related to the foregoing entry and the transaction illustrated thereby is the capitalization of net financial charges, that is, nominal interest plus discount amortization or minus premium amortization, which financial charges are recorded initially in interest expense accounts. In the field of utility regulation, there is a close relationship between plant valuation and charges for services. In general, utilities are allowed to earn a fair rate of return upon some valuation of the plant used in rendering the service. Thus, it becomes financially profitable for a utility to obtain the highest allowable valuation for its operating properties. Over a period of time, it has become established practice to allow utilities to capitalize financial charges during the construction period—financial charges not only on borrowed money but also on any other funds expended upon the project. Capitalizing interest on nonborrowed money is permitted on the ground that the use of the money for the construction deprives the utility of its use for other profitable activities. Among accountants generally, the consensus seems to oppose capitalizing any interest charges whatever, on the ground that interest is a cost of financing and not of construction. However, as long as privately owned utilities include financing charges during construction as a cost of the completed asset, it would appear that publicly owned utilities should do likewise, in order that the accounts and statements of the two groups may lend themselves to more dependable comparisons.

Capitalization of interest charges during a given fiscal period might be recorded by an entry such as the following:

5. Construction Work in Progress	1,600	
Interest Expense		1,600
To transfer from the latter account to the former the amount of interest charges to be capitalized for the year.		

If the charge for interest were based upon the use of the utility's own money, the credit member of the above entry would be Interest Charged to Construction or some similar title.

Upon completion of a construction project, all costs accumulated in the Work in Progress account must be classified under exact account titles, not only as to controlling accounts but for subsidiary accounts as well. If it be assumed that expenditures charged to Work in Progress amount to $410,000, of which $387,000 was for structures and improvements and the balance for clearing land, the following entry might be made:

6. Structures and Improvements	387,000	
Land	23,000	
Construction Work in Progress		410,000
To transfer the total cost of construction to permanent accounts.		

After all construction costs have been paid, the utility may still not have disbursed all the cash realized from the supporting bond issue. The method of disposing of excess funds may be dictated by law or other pertinent regulations; but in the absence of such control, a logical disposition of the amount would appear to be transferal to the bond sinking fund, if one is being operated.

Conclusion

Although it is possible to agree upon certain general principles which seem to offer guidance toward effective accounting for publicly owned utilities, widespread deviations from these principles may be found. State laws and local ordinances, reflecting regional and community experiences with, and attitudes toward, utilities, size (based on volume) of the utility, physical and economic conditions under which the utility operates, and other factors, all have a bearing on the utility's accounting system and procedure. To repeat a suggestion previously made, accounting for publicly owned utilities should follow rather closely the manual prescribed for privately owned utilities of similar size in the same state. In the next chapter, further attention will be given to financial reporting for utilities and to other special features of utility accounting.

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QUESTIONS

1. The balance sheet of a large municipal electric fund showed Customers' Deposits as a current liability in the amount of $122,317. No assets were segregated to balance the liability. Discuss the merit or lack of merit in this procedure.
2. When utility customers are required to make deposits to guarantee return of meters and payment of bills, the utility incurs a liability for the amount of the deposit and ordinarily for interest on the deposits. If during a given year the income from customers' meter deposits investments exceeds interest expense on customers' deposits, should the difference between the two interest amounts be credited to a customers' deposits surplus account? Why?
3. A privately owned utility had a net worth of $150,000. It was purchased

intact for $175,000, by a municipality. Of the premium, $10,000 was assigned to land and the balance to buildings.

a) What debit account titles would you select for recording the two amounts of premium?
b) Supposing the building to which the premium applied had an estimated remaining life of 12½ years, make a journal entry to record one year's amortization.
c) What do you think of recording amortization of the premium on the land on the same or a similar basis?

4. In Illustration 11–2 it is assumed that the cash and receivables of the transferor were transferred to the new owner, that is, that the utility was acquired intact. Assume that the purchase price was the same but that cash and receivables were retained by the transferor and make an entry to record the purchase of assets. Recording payment for the assets is not required.
5. What do you assume to be the significance and purpose of a Reserve for Outstanding Tickets account in the balance sheet of a municipal street railway?
6. Some utilities in some jurisdictions are required by law to fund their depreciation reserves, that is, establish a segregation of assets in the amount of the total depreciation. What is the purpose of such a requirement?
7. A certain large city is the site of much large-scale manufacturing which is subject to great seasonal and cyclical fluctuations, as well as strikes and threats of strikes. Its municipal water utility follows the policy of accruing unbilled revenue from water sales for statement purposes. Do you see any logical connection between the foregoing sets of facts?
8. Refer to Illustration 11–6 and make a closing entry for the nominal accounts of Rossburg's electric utility fund for fiscal 1969. Close the loss to Retained Earnings, which will become a deficit account for the time being.
9. Bearing in mind the purpose of replacement funds (as a segregation of assets) and reserves for replacement, which of the two do you consider to be the more important, assuming that a utility has only one of the two?
10. One utility operates in an agricultural–small town community. Another operates in a metropolitan area characterized by a considerable shifting of population from one house to another and from one neighborhood or community to another. Should both utilities maintain a system of meter deposits? Explain.

PROBLEMS

1. The town board of Maumee directed that $375,000 cash be transferred from the town's general affairs as a permanent contribution to a newly created water fund. The cash represented the purchase price of the Wilkins Water Company, plus an additional amount to serve as initial working capital for the new activity. At April 30, 1968, the effective date of purchase, the Wilkins Company had the following after-closing trial balance:

	Debit	Credit
Land	$ 32,000	
Structures and improvements	507,000	
Allowance for depreciation—structures and improvements		$272,000
Equipment	156,000	
Allowance for depreciation—equipment		85,000
Cash	19,000	
Accounts receivable	44,000	
Estimated uncollectible receivables		16,000
Materials and supplies	7,000	
Prepaid general expenses	11,000	
Vouchers payable		29,000
Accrued expenses		6,000
Capital stock		378,000
Retained earnings	10,000	
	$786,000	$786,000

The acquisition occurred as follows:

(1) The municipal contribution was received on April 25, 1968.

(2) As of April 30, 1968, the Maumee water utility fund acquired the assets of the Wilkins Water Company, excluding cash. Receivables were purchased at one half of their face value. When the purchased assets were recorded the allowance for uncollectible receivables was increased to establish the new book value of receivables. The vendor's liabilities were assumed and a cash payment of $343,000 in full settlement was made.

You are required to do the following things:

a) On the books of Maumee water utility fund journalize the municipality's contribution and the fund's acquisition of the Wilkins property.

b) Post your entries to T accounts.

c) *Prepare a trial balance of the town of Maumee Water Utility Fund for* April 30, 1968.

2. (NOTE: This problem is based on the trial balance from the solution to Problem 1.)

During the fiscal year ended April 30, 1969, the transactions and year-end adjustments of the Maumee water utility fund were as follows:

(1) Billings to customers during the year for water usage totaled $312,000.

(2) To provide additional working capital a six months' loan of $75,000 was obtained. The note bore interest at 6 percent per year, payable at maturity.

(3) $132,000 for new structures and improvements, and $71,000 for new equipment acquired as part of a rehabilitation program, were vouchered during fiscal 1969.

(4) Other transactions vouchered during fiscal 1969 were as follows:

Materials and supplies (debit Materials and Supplies)	$ 37,900
Payment of note and interest expense	...
Salaries and wages	173,400
General expenses (no prepayments)	31,700
Insurance premiums (Prepaid General Expense)	10,300
Tax expenses	4,600
Accrued expenses at April 30, 1968	...

(5) During fiscal 1969 structures and improvement which had cost $81,000, with a book value now depreciated to $12,000, and equipment which had cost $37,000, with a book value now depreciated to $13,000, were sold for $15,000 cash. For lack of complete information, record disposal of the assets in the manner conventionally used for nonutility fixed assets, rather than by use of a Retirement Work in Progress account. (Debit Loss on Disposal of Fixed Assets.)

(6) $18,000 of old outstanding accounts receivable were written off.

(7) During fiscal 1969 the utility instituted a program of deposits, to reduce meter damage and customer defaults on water bills. $6,400 cash, to be segregated, was collected during the year.
(8) Accounts receivable collections totaled $311,400 for the fiscal year.
(9) $541,000 of vouchers were liquidated. $120,000 was by notes payable issued to fixed asset vendors and the balance was by cash.
(10) $120 was recorded as interest accumulated on customer's deposits.
(11) April 30, 1969, adjustments:
(a) Depreciation expense for the year (one journal entry):

Structures and improvements	18,000
Equipment	5,000

(b) Bills for materials and supplies, $7,000, and for insurance premiums, $400, received but not audited and approved at April 30, 1969. (Credit Unaudited Vouchers.)
(c) Accrued expenses:

Interest on notes payable	250
Taxes	300
Salaries and wages	3,800

(d) To adjust Materials and Supplies account to agree with ending inventory of $7,200 (debit Repairs and Maintenance).
(e) Estimated loss on bad debts: 1 percent of year's sales of water.
(f) Inventory of prepaid general expense: $8,200.

You are required to do the following things:

a) Make a ledger with account titles and balances from your solution to Problem 1.

b) Record the transactions and prepare a trial balance of the fund for April 30, 1969.

3. The after-closing trial balance of the town of Whitewater electric fund at June 30, 1968, was as follows:

TOWN OF WHITEWATER

Electric Fund
Trial Balance, June 30, 1968

	Debit	*Credit*
Structures and improvements	$315,000	
Allowance for depreciation—structures and improvements		$185,000
Equipment	108,000	
Allowance for depreciation—equipment		61,000
Land	19,000	
Electric plant acquisition adjustment	41,000	
Allowance for amortization—electric plant acquisition adjustment		24,600
Cash	17,900	
Accounts receivable	19,600	
Estimated uncollectible accounts		1,100
Investments	21,000	
Materials and supplies	11,400	
Prepaid expense—fuel	2,200	
Unexpired insurance	430	
Vouchers payable		5,300
Accrued expenses		200
Customers' deposits payable		2,040
Accrued interest—customers' deposits		110
Municipality's contribution		250,000
Retained earnings		26,180
	$555,530	$555,530

The following transactions, stated in summary form, occurred during fiscal 1969:

(1) Sales of electric service, $178,000.
(2) Issuance of vouchers for purchase invoices, service bills, etc.:
   Insurance premiums (Unexpired Insurance), $680.
   Materials and supplies, $7,400.
   Salaries and wages, $95,050.
   Repairs and maintenance costs, $8,070.
   Fuel (Prepaid Expense—Fuel), $22,030.
   State taxes, $7,080.
   General expenses, $3,170.
   Water service, $620.
   New structures and new equipment, $18,300 and $7,200, respectively. These were not replacements.
   Expenses accrued at the beginning of the year.
(3) Cash receipts during the year were as follows:
   Meter deposits by new customers, $360.
   Interest on investments, $810.
   Collections on account, $177,400.
(4) Cash payments during the year were as follows:
   On vouchers payable, $162,900.
   For unvouchered claims: $90 to customers for accrued interest on meter deposits and to discontinuing customers, $320 for refund of meter deposits and $10 for interest accrued on the refunded deposits.
(5) Miscellaneous transactions were as follows:
   Compliance with a state commission's order to establish a funded replacement reserve, by transferring all investments to a Replacement Fund and establishing an appropriately titled reserve by a transfer from Retained Earnings.
   Credit of $120 accrued interest on customers' deposits.
   Scrapping of fully depreciated structures and equipment which had cost $23,300 and $13,200, respectively. No net salvage value.
   Accounts receivable written off, $710.

Adjusting information (no income accrual) for June 30, 1969, is as follows:

(1) Depreciation rates: structures and improvements, 3 percent on ending balance of cost; equipment, 6 percent on ending balance of cost. (For purposes of this problem, one debit may be used here—Depreciation of Fixed Assets.)
(2) Amortization of electric plant acquisition, 5 percent per year on cost.
(3) Accrued expenses (credit Accrued Expenses):

State taxes	$270
Salaries and wages	820

(4) Estimated loss on uncollectible accounts, 0.5 percent on sales.
(5) Prepaid expenses:

Fuel (debit Fuel for adjustment)	$ 1,830
Insurance (debit Insurance Expense for adjustment)	510
Materials and supplies (adjust to Repairs and Maintenance), at cost	11,620

You are required to do the following things:

a) Do all the things necessary to obtain an adjusted trial balance for June 30, 1969. This may be done by the use of T accounts and direct posting; or by use of T accounts, formal journal entries, and posting; or by use of a worksheet.

b) From the adjusted trial balance, or from a balance sheet and an income and expense statement, give answers to the following queries:
   1) While the problem illustrates several transactions typical of an electric

utility it omits one important class of costs which is experienced by utilities and practically all other kinds of business enterprises. Name this class of costs.

2) There is some evidence that the materials and supplies inventory carried by the utility, based on the beginning and ending inventories, may be "out of line" with requirements. Explain.
3) Assuming that the town of Whitewater acquired its electric utility from the owner who first dedicated the property to public use, it is indicated by related information given in the problem that the utility has been owned somewhat more than 10 years. State exactly how long, based on available information, the utility has been owned by Whitewater.
4) In the June 30, 1968 trial balance, accumulated depreciation recorded on structures and improvements was $185,000, and for fiscal 1969 depreciation of those items was reported as $9,300. Does this indicate Whitewater had owned the utility close to 20 years? Explain.
5) Although commonly violated, there is a belief held by many that a publicly owned utility should operate substantially at cost. Assuming that no transfers out of assets, based upon earnings, have been made by the Whitewater electric utility, do you think it has made substantial conformance to the "at cost" theory? Explain.
6) A utility such as Whitewater's electric system might finance a proposed $75,000 expansion, (1) by borrowing, (2) from assets accumulated through prior years' earnings, (3) by contributions or advances from other governmental funds or agencies, or (4) by contributions or advances from the new customers to be served, or some combination of two or more. In the absence of other information, state which one or ones of the four might be used alone to finance the proposed $75,000 outlay.

4. At June 30, 1969, the city of Y auditorium plaza garage fund had the following adjusted trial balance, with account titles arranged in alphabetical order:

	Debit	*Credit*
Accounts receivable	$ 1,410	
Accrued fiscal agent's fees—revenue bonds		$ 100
Accrued interest—bond redemption investments	2,340	
Accrued interest on revenue bonds payable		40,840
Accrued interest—special maintenance investments	350	
Allowance for depreciation—building and equipment		682,060
Estimated uncollectible accounts		120
Buildings	3,935,650	
Cash	36,480	
Cash—revenue bond redemption (and interest)	9,820	
Cash—special maintenance	900	
Contributions—bond fund		2,233,460
Contributions—general fund		1,250
Contributions to employee retirement fund	710	
Due from other funds	110	
Due to other funds		90

Equipment	25,410	
Investments—revenue bond redemption and interest	406,300	
Investments—special maintenance	99,100	
Insurance expense	7,830	
Interest and fiscal agent's fees	166,500	
Interest on investments		15,220
Land	2,234,710	
Matured interest payable on revenue bonds		1,650
Materials, supplies, and maintenance expense	17,950	
Miscellaneous income		1,700
Miscellaneous operating expenses	1,760	
Parking fees		382,830
Payroll taxes	2,690	
Premium expense—redemption of revenue bonds	1,550	
Prepaid insurance	3,340	
Professional services	2,870	
Provision for depreciation—buildings and equipment	80,990	
Provision for doubtful accounts (other deduction)	440	
Revenue bonds payable in 1989		3,959,000
Retained earnings, June 30, 1968	200,340	
Salaries and wages	76,650	
Uniforms and laundry	720	
Utility services	22,530	
Warrants payable and accrued expenses		21,130
	$7,339,450	$7,339,450

You are required to do the following things:

a) Prepare a statement of income and expense for the fiscal year ended June 30, 1969. The city of Y divides its garage fund income and expense statement into operating revenue, operating expenses, other income, other deductions, and provision for depreciation, the last being shown as a separate item. Excess of operating revenue over operating expense is called "operating income before provision for depreciation." The net result before provision for depreciation is called "net income before provision for depreciation." The amounts after adding other income and after other deductions have no special significance and are not named.

b) Prepare a balance sheet for June 30, 1969. The city of Y divides its garage fund assets into current, restricted, and fixed. Restricted assets are divided into special maintenance assets, and bond redemption and interest assets. Liabilities are divided into current liabilities (payable from current assets), current liabilities (payable from restricted assets), and long-term liabilities.

c) For 1969 the cash results of operating the garage (approximately net income before depreciation) were somewhat less than $100,000. Assuming about the same annual results could be obtained to June 30, 1989, state whether the increase in cash from running the garage would be sufficient to pay off the bonded debt.

d) The city of Y is a large metropolitan area. Give an explanation of the high ratio of land cost to building cost ($2,234,708 to $3,935,654) in its garage fund.

5. The city of Q operated a public housing project with the use of a housing fund which for 1969 and 1968 had the following comparative statement of revenue and expense:

	1969	*1968*
Operating revenue:		
Rents	$ 4,737,120	$ 4,578,700
Other	81,600	92,440
Total operating revenue	$ 4,818,720	$ 4,671,140
Operating expense:		
Management	$ 654,150	$ 634,470
Operation and maintenance	4,470,910	4,164,100
Total operating expense	$ 5,125,060	$ 4,798,570
Operating income (loss)	$ (306,340)	$ (127,430)
Other income:		
Earnings on investments	$ 79,250	$ 80,450
Loss on fixed assets retired	(70,420)	(34,300)
Other Income—Net	$ 8,830	$ 46,150
Income (loss) before interest expense	$ (297,510)	$ (81,280)
Interest expense	$ 1,118,260	$ 1,136,160
Loss before federal subsidy	$(1,415,770)	$(1,217,440)
Federal subsidy for interest	1,118,260	1,136,160
Net Income (Loss)	$ (297,510)	$ (81,280)

You are required to do the following things:

a) Using the following form as a model, prepare a comparative statement of revenue and expense for city of Q public housing fund through Operating Income (Loss):

(INSERT COMPLETE HEADING)

			*Increase–Decrease**	
Items	*1969*	*1968*	*Amount*	*Percent*

To conserve time, compute percentages ignoring last three digits of the amount of change. Calculate percentages to nearest tenth. The amount of change to be shown for Operating Income (Loss) refers to the change in *income* rather than in *loss*, therefore is a negative amount in this instance.

b) None of the reported items includes depreciation of fixed assets, which was estimated at $1,400,000 and $1,300,000 for 1969 and 1968, respectively. Calculate what the total rental charges for each year would have had to be to cover all financial and other costs of the project and to break even, all other items of revenue and costs remaining the same.

c) Calculate what percent of increase is represented by each of your answers for (*b*). Omit last three digits for this computation. Carry percentages to nearest tenth.

6. For the fiscal year ended February 28, 1969, Oakland City's gas utility fund showed the following information about its retained earnings and contributions:

(1) At February 29, 1968, the balances of the two elements had been $6,580,060 and $5,317,500, respectively.
(2) The city sold an issue of general obligation bonds to finance expansion of the gas plant, the debt to be retired from general fund revenue. $1,000,000 was received by the gas fund.
(3) Net income of the gas fund for fiscal 1969 was $116,870.
(4) Contributions from prospective customers to assist in financing expansion of the system totaled $23,810 during the year.
(5) $25,000 was added to the gas fund's reserve for replacement.
(6) A contribution of $36,250, representing a payment in lieu of property taxes, was made to the general fund.
(7) $240 was refunded to inactive customers whose unclaimed meter deposits had been added to contributions because of earlier inability to locate the persons to whom the deposits belonged.
(8) During the year a correction of $21,250 was made because of prior years' depreciation charges which had been disallowed by the state utility commission.
(9) Contributions of $203,120 were received from real estate developers.
(10) During the year there occurred the release of $10,000 which had been transferred to a sinking fund reserve. The amount represented utility bonds retired this year.

You are required to prepare a statement of changes in retained earnings and contributions for the year ended February 28, 1969. Include a total column, as well as one for each of the two classes of equity.

7. At the end of fiscal 1969, the accounting department of the city of M water and sewers department prepared two balance sheets for the sewer division: a capital fund balance sheet and a revenue fund balance sheet—a practice favored by some recognized authorities. The two are shown below:

CITY OF M

Sewers Division
Capital Fund
Balance Sheet, April 30, 1969

Assets

Utility plant:		
Utility plant in service	$36,807,211	
Less: Allowance for depreciation	8,843,529	
	$27,963,682	
Construction work in progress	278,395	
Total fixed assets		$28,242,077
Cash:		
Sinking fund	$ 134,088	
Renewal and replacement fund	177,266	
Total cash		311,354
Investments:		
Sinking fund	$ 467,000	
Renewal and replacement fund	500,000	
Total investments		967,000
Accrued interest on investments—sinking fund		5,656
Due from sewer revenue fund—sinking fund		89,509
Total Assets		$29,615,596

Liabilities, Reserves, and Contributions

Liabilities:		
Long-term liabilities:		
Sewer revenue bonds payable		$ 5,409,000
Current Liabilities:		
Accounts payable—construction		58,748
Accounts payable—water division		9,707
Due to sewer revenue fund—renewal and replacement fund		14,896
Total Liabilities		$ 5,492,351
Reserves:		
Renewal and replacement fund	$ 662,370	
Sinking fund	696,253	
Total Reserves		1,358,623
Contributions:		
Sewage disposal system bond fund	$16,000,000	
Other contributions	6,764,622	
Total Contributions		22,764,622
Total Liabilities, Reserves, and Contributions		$29,615,596

CITY OF M

Sewers Division
Revenue Fund
Balance Sheet, April 30, 1969

Assets

Cash		$283,907
Receivables:		
Accounts receivable—users	$138,156	
Accounts receivable—renewal and replacement fund	14,896	
Accounts receivable—others	3,602	
Total Receivables	$156,654	
Less: Estimated uncollectible accounts	28,568	128,086
Other Assets:		
Prepayments	$ 50,110	
Materials and supplies	134,080	184,190
Total Assets		$596,183

Liabilities and Retained Earnings

Liabilities:	
Accounts payable and accrued expenses	$ 55,856
Accounts payable—water division	79,380
Due to capital fund sinking fund	89,509
Total Liabilities	$224,745
Retained Earnings	371,438
Total Liabilities and Retained Earnings	$596,183

You are required to do the following things:

a) Merge the two balance sheets into a Sewer Division balance sheet, making the following changes:

(1) Consider revenue fund liabilities as being current.
(2) Under Cash, list revenue fund cash as general.
(3) Classify capital fund accrued interest under Other Assets.
(4) Two sets of reciprocal items in the two balance sheets should be eliminated.
(5) Change Contributions to Contributions and Retained Earnings.

b) In Chapter 11 mention was made of secondary self-balancing groups of accounts often found in utility balance sheets. There are two such in the original capital fund balance sheet. Identify the items in each of the two groups and arrange each group in a simple trial balance, with only a memorandum heading.

c) State what would probably be the major kinds of fixed assets of a sewer system.

d) State why a renewal and replacement fund is needed in the presence of a depreciation allowance.

8. You are preparing your long form report in connection with the examination of the State Gas Company for the year ended September 30, 1969. The report will include an explanation of the 1969 increase in operating revenues.

The following information is available from the company records:

	1968	*1969*	*Increase (Decrease)*
Average number of customers	27,000	26,000	(1,000)
MCF sales	486,000	520,000	34,000
Revenue	$1,215,000	$1,274,000	$59,000

Required:

a) To explain the 1969 increase in operating revenue, prepare an analysis accounting for the effect of changes in:
(1) Average number of customers.
(2) Average gas consumption per customer.
(3) Average rate per MCF sold (MCF = thousand cubic feet).

(AICPA, adapted)

9. At June 30, 1969, the adjusted trial balance of the city of D street railway fund contained the following account titles and balances:

	Debit	*Credit*
Property, plant, and equipment (cost)	$44,577,700	
Allowance for depreciation—property, plant, and equipment		$23,296,900
Urban mass transportation grant fund	341,500	
Equipment purchase and construction fund	18,400	
Debt retirement funds	183,400	
Special deposits for debt retirement	1,257,700	
Cash	439,000	
Cash working (imprest) funds	187,400	
U.S. government securities (cost and accrued income)	1,595,000	
Accounts and contracts receivable	364,300	
Due from other funds	4,600	

Supplies inventories (cost)	399,600	
Prepaid expenses	21,100	
General obligation bonds payable		9,545,000
General obligation notes payable		750,000
Accounts payable—special funds		157,100
Due to other funds—special funds		9,100
Accrued interest on bonds and notes—special funds		89,400
Accounts payable		311,900
Due to general retirement system—city of D		3,844,900
Due to other funds		141,500
Accrued salaries and wages		694,400
Miscellaneous liabilities		23,100
Reserve for redemption of outstanding tickets		281,500
Reserve for equalization of vacation, longevity, and Social Security expense		305,300
Reserve for public liability and workmen's compensation		1,200,000
Contribution—federal government		1,788,000
Contribution—city of D general fund—federal program		1,474,100
Accumulated amortization of contributions	168,700	
City equity from operations (balance, June 30, 1968)		6,066,000
Operating revenue		32,844,600
Maintenance expense	3,741,100	
Transportation expense	15,748,300	
Motor fuel and servicing expense	2,581,300	
Administrative and general expense	8,908,400	
Taxes	236,200	
Depreciation—assets contributed under federal programs	168,700	
Depreciation—other fixed assets	1,922,600	
Interest income		169,700
Gain on fixed assets retired		39,500
Miscellaneous income		9,900
Interest expense	345,600	
Credit for amortization of contributions under federal programs		168,700
	$83,210,600	$83,210,600

You are required to prepare the statements indicated and answer the questions:

a) Prepare an income and expense statement for city of D's street railway fund for the fiscal year ended June 30, 1969. The following policies were observed by city of D in the form of its street railway fund income and expense statement:

(1) Taxes and depreciation of both categories of fixed assets are included as operating expenses.
(2) The difference between operating revenue and total operating expenses is described as "Operating income (loss)."
(3) No name is given to the sum of "Operating income (loss)" and "Total other income."
(4) The difference between the sum of "Operating income (loss)" and "Total other income" and interest expense is described as "Income (loss) before credit for amortization of contributions."
(5) The final result on the statement is described as "Net income (loss)."

b) Prepare a balance sheet of the fund for June 30, 1969. In its annual balance sheets the utility observes the following policies of special interest:

(1) Assets are classified as "long-term," "current assets—special funds," and "other current assets."
(2) Liabilities are classified as "long-term liabilities," "current liabilities of special funds," and "other current liabilities."
(3) Accumulated amortization of contributions is shown as a contra to the total of contributions.

c) Examination of published annual reports of the city of D street railway fund revealed that the following two entries were made during fiscal 1969, in connection with contributions under a federal program:

(1) Accumulated amortization of contributions under federal programs (balance sheet account)	168,657	
Credit for amortization of contributions made under federal programs (income and expense statement)		168,657
(2) Depreciation of fixed assets contributed under federal programs (income and expense statement)	168,657	
Allowance for depreciation—property, plant, and equipment (balance sheet)		168,657

Ignoring the valid question about the propriety of the two entries, state how the contents of the income and expense statement and the balance sheet are affected by the two entries.

d) In the city of D street railway fund balance sheet, the special funds consist entirely of cash, government securities, and accrued income, which are not only current but quick assets. What is the probable reason for dividing the current assets and the current liabilities each into two groups?

CONTINUOUS PROBLEM

11–L. Problem 12–L, following Chapter 12, illustrates the material presented in both Chapter 11 and Chapter 12.

Chapter 12

Enterprise Funds: Statements and Special Transactions

In Chapter 11 the discussion related largely to the major governmentally operated enterprises—electric, water, gas, surface transportation, sewer, and other services conventionally described as utilities. Accounting and reporting for enterprises of those kinds is specialized and rather definitely standardized. The group includes most of the state and nationally regulated utilities. On the other hand, a considerable variety of practices and procedures is found in accounting and reporting for airports, housing, food markets, parking facilities, liquor stores, and the other commercial activities engaged in by governmental units. It is not possible to make significant and helpful generalizations about that group of enterprises and others related to them, except to say the accounting and financial reporting procedures of each commonly follow those of its commercial counterpart. A problem related to one of the less common kinds of enterprises (airport) may be found at the end of this chapter and two (parking garage and public housing) at the end of the preceding one. For the reasons stated above, enterprises commonly referred to as utilities will be made the subject matter of this chapter, although many statements may have applicability to some of the other kinds of enterprises of less common occurrence. Three typical financial statements and various unique accounting procedures will be illustrated and discussed.

Balance sheet

The balance sheet in Illustration 12–1 shows not only the characteristic heretofore illustrated or mentioned above but a number of others of lesser importance as well. The statement follows in general the form recommended by two of the most authoritative organizations in the realm of utility accounting and management.[1]

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[1] Municipal Finance Officers Association of the United States and Canada and American Water Works Association, *Water Utility Accounting* (Chicago and New York, 1970); and National Association of Railroad and Utilities Commissioners, *Uniform System of Accounts for Electric Utilities* (New York: State Law Reporting Company, 1958.)

COMMENTS ON BALANCE SHEET

Fixed assets, or plant and equipment

Not all enterprise funds list fixed assets first in the balance sheet. A few perform primarily a merchandising service; and for these the conventional mercantile balance sheet, with current assets in the most prominent location, is preferable. Others probably do not wish to change an established practice. The discussion which follows is pertinent regardless of balance sheet position of items discussed.

In the balance sheet shown in Illustration 12–1, construction in progress is classified as a fixed asset. If the project is being financed exclusively by a bond issue, some merit might lie in establishing a bond fund group of assets outside of fixed assets which could include at least construction (or bond) cash and construction in progress. When the project has been finished, the group might be extinguished by the transfer of residual cash, if any, to the sinking fund or other designated recipient, with construction in progress going to whatever fixed asset accounts best describe the completed unit or units. Depreciation should not be recorded on any constructed asset until the asset or some part of it goes into service. Many utilities own fixed assets not presently being used for serving the public, which calls for a twofold division of fixed assets into utility plant in service and utility plant not in service. Some utility accounting manuals include detailed lists of property units, classified into related groups under titles appropriate for general ledger controlling accounts.

What constitutes cost in accounting for utility fixed assets? Logic or reason is not always the deciding factor in answering this question for particular situations. Although the probable duration of benefits from the expenditure is a basic consideration, the relatively large volume of utility expenditures requires the adoption of numerous precise rules for distinguishing between capital and operating costs. As with many other aspects of utility operation, mandates and opinions of regulatory commissions are of paramount importance in the final determination of what are and what are not acceptable charges to capital accounts. An idea of the wide range of items recognizable as utility fixed asset costs is embodied in the recognition by the Federal Power Commission of 18 different kinds of costs which may be capitalized by utilities under its jurisdiction.[2]

Because of the previously noted fact that the cost of the plant used in performing the service is of great importance in determining the rates a utility may charge, it is apparent that the utmost care should be exercised in the classification of expenditures between capital and revenue. If the management of the utility consistently requires work orders[3] for all plant

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[2] Federal Power Commission, *Uniform System of Accounts Prescribed for Public Utilities and Licensees* (Washington, D.C.: U.S. Government Printing Office, 1961), pp. 8–9.

[3] For an excellent presentation of work orders see Public Service Commission, State of New York, *Uniform System of Accounts for Water-Works Corporations, Classes A and B* (Albany, N.Y., 1966), pp. 945–46.

Illustration 12–1

CITY OF ANSONIA

Electric Utility Fund
Balance Sheet
December 31, 1968

Assets

Plant and Equipment:			
Structures and improvements		$480,000	
Less: Allowance for depreciation		170,000	$ 310,000
Machinery and equipment		$230,000	
Less: Allowance for depreciation		90,000	140,000
Utility plant acquisition adjustment		$ 32,000	
Less: Allowance for amortization		17,000	15,000
Construction work in progress			211,000
Land			37,000
Total Plant and Equipment			$ 713,000
Current and Accrued Assets:			
Cash—operating		$ 27,000	
Cash—construction		63,000	
Accounts receivable	$62,000		
Less: Estimated uncollectible accounts	2,200	59,800	
Accrued utility revenue		8,100	
Materials and supplies		17,000	
Prepaid expenses		5,200	
Total Current and Accrued Assets			180,100
Replacement Fund:			
Investments		$218,000	
Accrued interest on investments		5,600	
Total Replacement Fund			223,600
Customers' Deposits:			
Cash		$ 210	
Investments		10,500	
Accrued interest on investments		190	
Total Customers' Deposits			10,900
Sinking Fund:			
Investments		$ 35,600	
Accrued interest on investments		780	
Total Sinking Fund			36,380
Deferred Debits:			
Unamortized discount on bonds payable		$ 900	
Preliminary survey charges		1,360	
Total Prepaid Expenses			2,260
Total Assets			$1,166,240

Liabilities, Reserves, Contributions, and Retained Earnings

Liabilities:		
Fixed Liabilities:		
Bonds payable		$ 140,000
Total Fixed Liabilities		$ 140,000
Current Liabilities:		
Vouchers payable—operating	$ 23,000	
Vouchers payable—construction	32,000	
Contracts payable	51,000	
Accrued wages	3,700	
Accrued bond interest	4,200	
Accrued taxes	3,900	
Total Current Liabilities		117,800

Illustration 12-1—(*Continued*)

Other Liabilities:		
Customers' deposits	$ 9,270	
Accrued interest on customers' deposits	230	
Total Other Liabilities		$ 9,500
Total Liabilities		$ 267,300
Reserves:		
Reserve for replacements	$223,600	
Reserve for retirement of sinking fund bonds (actuarial requirement: $37,400)	36,380	
Total Reserves		259,980
Contributions:		
Contributions from customers	$ 50,300	
Municipality's contribution	400,000	
Retained earnings	188,660	
Total Contributions and Retained Earnings		638,960
Total Liabilities, Reserves, Contributions, and Retained Earnings		$1,166,240

expenditures, the information accumulated in that manner provides a reliable basis for classifying costs between capital and revenue. Even with maximum information, the borderline nature of many items is such as to call for occasional arbitrary decisions, for some of which the regulatory manuals may offer helpful suggestions and rules of guidance.

Clearing accounts

The borderline nature of many utility expenditures has led to the development of a special type of account called a "clearing account." Clearing accounts are suspense accounts which are used for accumulating all transactions of given kinds, pending final decision as to whether each transaction is of a capital or revenue nature and as to the exact title or titles to be debited for each entry in the clearing account. One well-known state utility commission has established six clearing accounts for electric and water utilities under its jurisdiction. These are Charges by Associated Companies, Stores Expenses, Transportation Expenses, Laboratory Expenses, Shop Expenses, and Tools and Work Equipment Expenses, each of the above account titles being followed by the word "Clearing." Some of the accounts are optional, the ones found most frequently being Stores Expenses, Transportation Expenses, and Shop Expenses.

Clearing accounts are charged through the regular expenditure procedure. Periodically, and especially before statement preparation, the suspense accounts should be cleared by apportionment of the costs, based upon analysis and classification of the component items. The transfer from any given clearing account, after determining the final disposition of the items to be transferred, is shown as follows:

Electric Pumping Equipment	10,900	
Operating Expenses	8,400	
Stores Expenses—Clearing		19,300
To distribute charges made to Stores Expenses—Clearing.		

The explanation of this entry should be expanded to show exactly what individual operating expense accounts are to be charged and what construction accounts should be debited, in order that capital expenditures may get to the fixed asset accounts in which they belong, upon completion of the project. Although clearing accounts have been discussed in connection with capital expenditures, their debits are likely to be predominantly of a revenue nature.

Fixed asset depreciation allowances or accumulations

For a correct statement of utility expenses, the cost of depreciable fixed assets must be amortized over the estimated serviceable life of the assets. A discussion of depreciation as an expense will be found in the latter part of this chapter. Accumulations of depreciation are supplementary to the accounts recording the cost of fixed assets and, therefore, are balance sheet items. For each account for depreciable fixed assets carried in the general ledger, there should be a general ledger depreciation allowance account. For example, if the ledger contains a Pumping Plant account, it should also carry an account entitled Allowance, Accumulation, or Provision for Depreciation of Pumping Plant. Those two accounts will have the same set of subsidiary ledger accounts, that is, a card, sheet, or page for each individual item of pumping plant, on which will be shown detailed information about the item. This should include complete identification, location, source of procurement, and cost, along with a detailed schedule of depreciation recorded on the item. Further assuming individual unit depreciation, if the Pumping Plant account in the general ledger shows a balance of $418,000, the balances of pumping plant subsidiary accounts must total the same amount; and the balance of the Allowance for Depreciation of Pumping Plant must equal the sum of the accumulated depreciation recorded in all the detailed accounts.

Occasional changes may be required in the allowances for depreciation. Causes of such changes are too fast or too slow depreciation in the past, and sale, retirement, destruction, or some other form of disposal. If, upon the basis of a trustworthy appraisal, it is found that the depreciation rate has been too low, an entry should be made to increase the allowance for depreciation to agree with the new total of estimated depreciation, with supporting increases entered on the subsidiary ledger records. Since charges for depreciation have been too small in the past, net income has been overstated. To correct these errors, the debit member of the above entry should be Retained Earnings. To adjust for excessive depreciation in

the past, the entry described above should be reversed. Direct debits and credits to Retained Earnings for the correction of errors in depreciation would be abhorrent to advocates of the "clean surplus" theory, which holds that only net income or net loss from the operating statement, appropriations to reserves, and distributions of net income should be recorded in Retained Earnings. However, the correction of prior years' gains and losses through direct debits or credits to Retained Earnings (or some comparable title) appears presently to have the sanction of important regulatory bodies.

The retirement of a utility fixed asset, for any reason, requires removal of the item from both the controlling account recording the cost, and the group depreciation allowance account. There is some variation in the recommendations of utility regulatory commissions for recording the total requirement or removal process. One leading commission prescribes this procedure, discussed further as the composite system on page 363:

1. Transfer cost of unit to be retired from its present account to Retirement Work in Progress.
2. Debit Retirement Work in Progress for all costs of retirement or removal.
3. Credit Retirement Work in Progress with proceeds of salvage and of insurance settlement, if either or both of those items exist.
4. Transfer balance of Retirement Work in Progress by crediting that account and debiting Allowance for Depreciation.

Since the recommended procedure stops at this point, the implication is that accumulated depreciation of the retired or removed unit exactly equaled the net amount transferred from Retirement Work in Progress. This exact relationship doubtless would not exist one time in one hundred, on the average, but to assume that it does saves the time which would otherwise be required for making adjustments for gains or losses on retirements or disposals. In general, it is assumed, gains on disposals offset losses on disposal and that the accumulated depreciation account is not seriously affected by the assumption. There is some disposition to dispense entirely with the procedure described above and close the entries related to retirement or removal directly into the accumulated depreciation account, whatever its name may be.

As indicated by the balance sheet in Illustration 12–1 at the beginning of this chapter, the Plant Acquisition Adjustment account is supplemented by a valuation allowance account until the outlay is fully amortized. The amortization allowance is comparable to the allowance used for depreciable fixed assets. The procedure to be followed in recording the amortization of the cost will be discussed later in this chapter, in connection with utility operating statements.

Current and accrued assets

This balance sheet section, as constituted in leading utility manuals, includes operating cash, amounts receivable from utility customers of all

kinds, some kinds of accrued income, and other items expected to be available for payment of current operating expenses or for liquidation of current liabilities. In addition, some utilities include in this section materials and supplies inventory and various other prepaid expense balances. The justification given for this practice by those who approve it is that these items reduce the demand for cash in the near future and thus improve the position of short-term creditors whose claims are represented by current liabilities.

Secondary asset groups

Assets shown in the secondary groups are, as stated previously, segregated for specific purposes. Although the groups may include cash, investments, and other assets of a liquid nature, these are not current assets in the sense of financial condition, since they are not intended to be applied to the extinguishment of current liabilities. Some utilities do not deem it necessary to exhibit the various segregated assets in individual groups according to purpose, but combine all in a single section. One advantage of separation by groups is that this arrangement facilitates the preparation of detailed schedules of changes in each group during the period ended on each balance sheet date.

Fixed liabilities

This balance sheet section should include all liabilities which are not expected to mature within the near future, customarily interpreted as one year from the balance sheet date. Even amounts of long-term debt with maturity dates falling in the next year may be left in the fixed liability section if segregated assets are available for their payment, thus relieving current assets of any lien for the payment. Accounts commonly found in this classification are bonds and long-term notes. As said before, the leading position in the equity section is recommended for fixed liabilities because of their natural association with fixed assets and because the management of fixed liabilities is usually a major problem in utility financial administration.

Current and accrued liabilities

Generally speaking, current and accrued liabilities are those that will mature within the next year and be liquidated from current or accrued assets. Typical current and accrued liabilities for utilities are accounts or vouchers payable, accrued salaries and wages, matured but unpaid interest coupons, accrued interest not yet due, accrued taxes and other unpaid expenses, and amounts due to other funds, although the last-named item is sometimes given a separate section to itself. Customers' deposits liabilities are sometimes classified as current liabilities, but this practice is questionable if special assets for the payment of deposit claims are carried in a secondary group, as has been recommended. Insofar as is permitted by

regulatory provisions, utility liabilities should be classified to give effect to their expected time of payment, to the assets that provide their primary security, and to the sources from which they are expected to be paid.

Deferred credits

Although not included in the balance sheet at the beginning of this chapter (Illustration 12–1), deferred credits are sometimes found in utility financial structures. Deferred credits are likely to be either unamortized bond premium, unearned income, or customers' advances on construction, to be applied against billings for service or refunded. The last is really a form of unearned income.

Reserves

For many years the word "reserve" was used in a number of ways by accountants. In recent years the words "allowance," "accumulation," and "provision" have been widely substituted for what formerly were called valuation "reserves." The term "reserve" is now largely restricted to segregations of retained earnings.

Earnings reserves should be shown in a section headed "reserves," and containing a reserve for any segregated asset for which a liability is not recorded. Examples of asset groups needing reserves are sinking funds, pension funds, and replacement funds. Assets segregated to cover customers' deposits require no reserve because the utility is required to show a liability to customers for the accumulated amount of their deposits. Any excess of deposit assets over deposit liabilities is the property of the enterprise and not of the customers.

Thus far, it has been assumed that retained earnings reserves will be established for all groups of segregated assets. This does not necessarily follow. The establishment of such reserves, which some accountants hold to be unnecessary, is merely a formal method of keeping before management and other interested parties the fact that some of the fund assets are not available for general purposes. In private corporation management, earnings reservations are supposed to guard against depletion of working capital by dividend declarations, by showing that a certain amount of otherwise free assets have been removed from operating uses. In enterprise fund management, earnings reservations help to protect working capital by signaling that some assets are not available for transfers to other funds, for rate reductions, for betterments, for expansion, or for other similar purposes. Examination of a number of enterprise fund balance sheets reveals many instances in which segregation of assets is not accompanied by reservations of earnings.

The procedure for establishing earnings reserves was illustrated in the preceding chapter in connection with the sinking fund, the replacement fund, and others. The question arises as to the time and method of terminating the reserve for a given collection of assets. Briefly, when the

assets have been disbursed, as for the purchase of fixed assets from a replacement fund, or when they are returned to general use, the reserve is no longer needed and should be returned to the account from which it was created. Assuming that replacement fund cash in the amount of $75,000 has been disbursed for its intended purpose, the following supplementary entry should be made:

Reserve for Replacement Fund	75,000	
Retained Earnings		75,000

Contributions and retained earnings

Some authorities favor showing each of these two financial elements in a separate section and some prefer calling Retained Earnings by its previous name, Earned Surplus. Other variations appear in the statements of highly reputable utilities.

The class of transactions to be listed under Contributions consists of those which are permanent and not actually temporary advances. They may come from customers (although this practice is probably on the decline), from a state or federal agency, or from another fund of the governmental unit sponsoring the utility. The title "Contributions—Other" in a utility balance sheet is likely to signify that the source of some financing, occurring before the time of detailed record keeping, is unknown. It is noteworthy that when *assets* acquired by contribution are disposed of it does not reduce the Contributions account; the amount *which was contributed* is unchanged. Presumably some other asset or assets has taken the place of the asset or assets disposed of.

The exact meaning of Retained Earnings or a substitute title in an enterprise balance sheet is likely to vary from one governmental unit to another. If practice conforms to recommendations of leading accounting organizations, the amount of retained earnings reported for a given date ($181,400 in Illustration 12–2) will be the sum or deficiency of net earnings and losses to date, minus reductions for assets then segregated for special purposes. This would constitute application of the "clean surplus" policy advocated by professional accounting organizations. The statement shown in Illustration 12–2 embodies the "clean surplus" policy.

Perhaps the most commonly occurring deviations from the policies embodied in Camden's statement are inclusion of extraneous gains and losses, such as gain or loss from disposal of fixed assets and insurance settlement gains or losses; adjustments for corrections of prior years' errors in techniques or judgments, such as over- or underestimation of revenues or costs, or mistakes in calculation; and transfer of net earnings to reserves before the earnings have been recorded in the Retained Earnings account. The mandates of regulatory commissions are influential in determining the format of utility statements of retained earnings, as is true of its other financial reports.

Illustration 12–2

CITY OF CAMDEN

Gas Utility Fund
Statement of Changes in Retained Earnings
Year Ended February 28, 1969

Retained earnings, balance, February 29, 1968		$186,200
Add: Release of retained earnings reserved for replacement fund		20,000
Total beginning balance and addition		$206,200
Deductions:		
Net loss for the year	$18,700	
Transfer to sinking fund reserve	6,100	
Total deductions		24,800
Retained earnings, balance, February 28, 1969		$181,400

INCOME AND EXPENSE ACCOUNTS AND STATEMENTS

Accounts of the kinds to be discussed here are variously referred to as "operating accounts" and as "revenue and expense accounts"; and some utility manuals characterize them simply as "income accounts." Regardless of name, they are the accounts used for describing and measuring causes of changes in enterprise net worth as a result of operations. They compare with the profit and loss or nominal accounts of private mercantile and manufacturing enterprises. Statements prepared from these accounts have more than one name in the enterprise field. They are called "operating statements," "revenue and expense statements," "income statements," and other names. It is safe to say that a utility of given size, based either on volume of service rendered or on total asset valuation, is likely to recognize a greater variety of operating transactions than is true for other commercial businesses of equal size. This probably is accounted for by the influence of government regulation. Uniformity of regulation requires a complete description of all transactions, which necessitates a greater number of account titles than would otherwise be used for internal control and for public reporting.

Form of operating statement

Although the forms of utility operating statements tend to vary by states, owing to the effect of regulation, some measure of uniformity has been agreed upon as preferable for classification of items within the statement. The main classifications observed in these more or less uniform statements are operating revenues, operating expenses, nonoperating income, and nonoperating expenses. But even where these divisions are recognized, there is some difference of opinion as to exactly how the items should be shown in each group. Occasionally, there are accounts that fit

nowhere in the standard classifications and so must be shown separately. An example of an account that does not conform to any standard grouping is Income from Electric Plant Leased to Others, which the New York Public Service Commission excludes from all revenue classes and lists separately as an addition to net operating revenues, to give electric operating income. One informative arrangement of operating results is shown in Illustration 12–3.

Illustration 12–3

CITY OF EATON
Water Utility Fund
Statement of Income and Expenses for 1968

Operating revenues:		
Sales of water:		
Metered sales to general customers	$640,000	
Flat-rate sales to general customers	121,000	
Public fire protection	203,000	$964,000
Other water revenues:		
Rent from water property	$ 5,100	
Customers' forfeited discounts and penalties	2,500	
Servicing of customers' installations	11,000	18,600
Total operating revenue		$982,600
Less: Operating revenue deductions:		
Operating expenses (Schedule—)	$709,300	
Depreciation	182,500	
Taxes	38,800	
Total operating revenue deductions		930,600
Operating income		$ 52,000
Add: Nonoperating income:		
Interest on bank deposits	$ 730	
Rent from nonoperating property	2,200	2,930
Total operating and nonoperating income		$ 54,930
Deduct: Nonoperating expenses:		
Interest expense on bonds	$ 12,300	
Interest on customers' deposits	410	12,710
Net income		$ 42,220
Appropriations of net income:		
Appropriations to sinking fund		27,000
Balance Transferred to Retained Earnings		$ 15,220

It will be noted that the transfer of net income to the sinking fund reserve (see Illustration 12–3) tends to contradict a previous illustration which shows sinking fund appropriations as a separation from retained earnings (see illustration on page 327). Transferring from retained earnings to the sinking fund reserve appears to be the prevailing practice in general corporation accounting, probably for the reason that the action is more or less mandatory without reference to the amount of net gain for a given year. If, however, the occurrence or amount of the transfer is contingent upon the amount of net income, then some support might be

found for appending it to the operating statement. From a practical standpoint, no great difference exists between the two methods of showing the reservation; but the one method adopted should be followed consistently from year to year.

Other statements

There are two other statements which may sometimes be added to the three major statements already mentioned (Illustrations 12–1, 12–2, and 12–3). These are a statement of cash receipts and disbursements and a statement of source and application of funds. Cash receipts and disbursements statements, with whatever amount of detail desired by those in authority, serve the usual purpose of accounting for the source and disposition of all cash which has been in the possession of the fund during the period represented.

Statements of source and application of funds are much less common than the other four major statements. In the main, they are statements prepared to account for changes in working capital during a period of time. They are sometimes said to explain the changes in financial condition between one date and another. Although changes in fixed assets, fixed liabilities, etc., are not entirely excluded from the statement, they are included only if related to changes in working capital. Space does not permit detailed discussion of statements of source and application of funds in this text, but excellent treatments will be found in a number of intermediate accounting texts.

Accounting for revenue

A substantial portion of enterprise revenue may be accounted for on an accrual basis because it is derived principally from rendering service on a contractual basis. This latter statement applies with greatest force to sales of service but is true, likewise, for nonoperating income because much of it is derived from the use of money or property at predetermined rates. Because of its adaptability to recording on an accrual basis, enterprise revenue lends itself to accurate determination if internal control is properly applied.

Charges for operating sales by utilities are sometimes on a metered basis and sometimes on a flat-rate basis. The two may be employed concurrently by the same utility, with service furnished to some classes of customers on one basis and to others on another basis. By way of explanation, the flat-rate basis refers to a system of charging a fixed amount per month, without endeavoring to measure actual use; but even under this system, there should be a gradation of charges depending upon whether the customer is residential, mercantile, industrial, or other. Metered service is measured by a recording device which determines actual usage;

gradation of rates under the metering plan is based upon volume of usage by billing periods.

Under the flat-rate plan, billing of customers is accomplished by applying to the list of customers appropriate rates for volume classes. Thus, all customers in the lowest volume class may be charged $2 per month, and so on for the various other recognized classes. Customer lists are based on applications for service or notices of termination, supplemented by formal reports by workmen who perform the work of making or severing connections. Metered service billings are based upon reports of meter readings at regular intervals and the application of rates according to the amount of service used. Utilities that meter their service make extensive use of cycle billing, which in substance consists of billing part of their customers each day, instead of billing by calendar months. Under this plan, meter reading is a continuous day-by-day operation, with billings following shortly after the filing of the meter readers' reports. Individual meters should be read on approximately the same day each month, in order that bills may be for periods of one month each. Cycle billing eliminates the heavy peak load of accounting and clerical work which results from uniform billing on a calendar month basis.

The total amount to be billed having been determined, an entry in the following form might be made:

Accounts Receivable	17,000	
Metered Sales		14,100
Flat-Rate Sales		2,900

If different classes of receivables (industrial, residential, etc.) are recognized, the above debit may be divided accordingly. Customers' bills may be made in multiple copies, one to be presented to the customer, one for filing, and others for any desired purposes. All bills for a given day will be posted to customers' ledger accounts and also summarized for entry in a book or register of original entry, to produce the debit and credits illustrated above.

A utility may occasionally find itself serving as a collection agency for some other activity. If, for instance, a sales tax or other similar levy is in effect in the utility's territory, the utility must serve as a collecting agency for the state or municipality. A charge of this sort may be debited to the customer along with his bill for utility service, but the credit should not be to a revenue account but to an appropriately captioned liability account. Also, the utility may be required to collect for another fund or department of the government, as when sewerage charges are added to water users' bills. Here again, the amounts of such supplementary billings should be excluded from revenue and recorded as amounts due to another fund or department.

Operating expenses

The prevailing concept of operating expenses for water, gas, and electric utilities is that they represent those costs incurred in discharging the main functions of the utility. The primary functions of an electric utility which generates its own power would be generation, transmission, and distribution, to which, for accounting and reporting purposes, might be added administration, sales promotion, and customers' accounting and collecting procedures. For a water utility the primary functions recognized might be source of supply, pumping, treatment, transmission, and distribution (sometimes combined with transmission), with supplementary functions described as commercial and administration. Utilities providing less standardized services, such as airports, wharves and docks, supply stores, etc., do not lend themselves to uniform classifications; and since they are not always subject to statewide regulation, a great variation in their expense classifications is to be expected.

To convey an idea of the amount of detail required in reporting utility operating expenses, the *Uniform System of Accounts for Electric Corporations, Classes A and B*, published by the Public Service Commission, State of New York,[4] lists three groups—Operation, Maintenance, and Miscellaneous—under Distribution Expense. The groups contain 8, 12, and 3 detail accounts, respectively.

Because of printing costs involved and limited public interest in minor classes of utility costs, utility published reports ordinarily do not contain more than the summary information such as that shown in Illustration 12–3. Details must be provided by internal reports, for regulatory commissions and management.

Depreciation of fixed assets

Whether depreciation of fixed assets is to be classified as a separate item of operating revenue deductions or treated as operating expense is a matter to be settled by regulatory commissions and utility management. Regardless of its classification for statement purposes, depreciation is a very important element of cost in utility operation, because of typically large investments in fixed assets. The problem is accentuated by the variety of properties included in the aggregate, these ranging from tools and equipment of short serviceable life to underground conduit systems, railroads, bridges, reservoirs, dams, etc., having a high degree of permanency.

Various methods are applied by utilities in determining periodic amounts of depreciation. A 1958 study by the Federal Power Commission,[5] applied to 263 electric utilities having annual electric operating revenue of $250,000 or more, revealed the use of four different methods of

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[4] Albany, 1965, p. 244.

[5] Federal Power Commission, *Electric Utility Depreciation Practices—1958*, FPC S-141 (Washington, D.C., 1958), p. 1.

depreciation: straight-line, interest, retirement, and revenue. In view of the fact that 92 percent of the utilities studied reported use of the straight-line method, it would appear that discussion of the less frequently used methods need not be included in this text. The well-known straight-line method is recommended by its basic simplicity and the fact that in the long run it has been found to give results equally satisfactory to those obtained by the other methods. These facts about the straight-line method suggest that its use probably predominates in the many utilities not covered by the FPC study.

Instead of accounting for accumulated depreciation by individual units of assets, many utilities use the composite system. This depreciates fixed assets by homogenous groups—various *types* of equipment, machinery, etc.—the theory being that probable overdepreciation of some individual units will be balanced by probable underdepreciation of other individual units. The composite system is not one of the depreciation methods but merely a way of applying the chosen method to the assets being depreciated. It is also unique in assuming that each asset unit's book value at retirement, sale, etc., is exactly equal to its residual value.

The intricacies of accounting for utility fixed asset depreciation have been succinctly stated in a letter written by the controller of a large electric utility:[6]

> In determining whether the accumulated depreciation is adequate at any given point in time, the conventional approach has been to use mortality studies of retirements and to apply these figures to the future. However, because of the rapid change in utility plant technology, such as nuclear power generation, extra high voltage transmission, underground distribution, etc., full life cycles have not occurred. Also, the increasing investment in air and water pollution control equipment at various points in the life of a station raises some interesting points on depreciation of these fixed assets.
>
> Our utility has made various studies from time to time and it has been concluded that the entire subject is extremely complex and imprecise.

Modern depreciation accounting, by whatever method effectuated, makes no claim of exact correlation with physical depreciation, but only strives to amortize the cost of a fixed asset by the time it becomes either physically or functionally unproductive. Detailed information about depreciation rates is obtainable from Internal Revenue Service publications, from utility regulatory bodies, from utility associations, and to some extent from the individual utility's own experience if careful records have been kept.

Amortization of plant acquisition adjustment

Related to depreciation of fixed assets is amortization of plant acquisition adjustments, referred to previously. Standard procedures do not seem

[6] Vernley H. Rehnstrom, Controller, Public Service Indiana; Plainfield, Indiana, November 5, 1968.

to have developed for recording this type of transaction, but a safe guide to follow would be the regulation established for private utilities in the territory of operation. One such regulation is found in the uniform system of accounts prescribed by the Federal Power Commission. The regulation stipulates that premium paid for long-term assets shall be allocated specifically to each kind of long-term asset acquired and that amounts so assigned "shall be depreciated, amortized, or otherwise disposed of as the Commission may approve or direct."[7]

A standard form of entry for amortizing the acquisition adjustment debits an expense account and credits a valuation allowance account in the following manner, amount assumed:

Amortization of Utility Plant Acquisition Adjustment..........	2,100	
Allowance for Amortization of Utility Plant Acquisition Adjustment....................................		2,100

Taxes

As a group, publicly owned utilities are subject to all but one of the taxes levied upon privately owned utilities. The lone exception is the federal income tax. It should be noted that publicly owned utilities *as a group* are subject to most of the taxes paid by those privately owned. This refers to the fact that utilities in some states are required to pay taxes from which utilities in other states are exempt. Thus, in one mid-western state, public ownership does not exempt a utility from payment of the adjusted gross income tax of that state; but it does relieve it from payment of the ad valorem property tax levied by the state and by the local unit in which the utility is situated. On the other hand, real estate and chattels of a governmentally owned utility may be exempt from taxes within the boundaries of the unit by which it is owned but subject to taxes on all property situated in other jurisdictions. In short, no safe generalization may be made as to exactly what taxes publicly owned utilities must pay: It is a matter for determination according to state laws and local ordinances effective in each utility's place of location and operation.

Although nominally and legally exempt from certain forms of taxes, utilities are frequently called upon to provide services or make financial contributions in lieu of taxes. The amounts of these costs are variable and contingent in amount, but it would appear that they should be classified as taxes even though not made under the compulsion of laws governing privately owned utilities. In no event should substantial amounts of services be rendered to other departments without being a matter of formal record as revenue and cost. An appropriate entry for service furnished to another department in lieu of taxes might be as follows:

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[7] Federal Power Commission, *Uniform System of Accounts Prescribed for Public Utilities and Licensees, op. cit.*, p. 25.

Municipal Tax Expense	29,500	
Sales to Municipality		29,500

If the service is billed on a cost basis, the debit and credit above constitute a "wash" entry with no effect on net income and may sometimes be omitted from both the income and the expense sections of the operating statement, with mention in a footnote.

Although utilities owned by local governments are usually exempt from property taxes, there is some question as to whether such exemptions are sound. Privately owned utilities ordinarily make substantial contributions to the cost of government through their tax payments, which in the last analysis come from utility customers. It is argued by some that properties of publicly owned utilities should be appraised and taxed in exactly the same manner as those that are privately owned, in order that the costs of the two classes may be more closely comparable and that the customers of the former may not improperly avoid governmental costs which they would share under private ownership. In substance, this point of view is related to the contention that comparisons between quality and cost of services under public and private ownership are not thoroughly reliable unless absolute standardization of costs exists for the two groups.

Disposition of utility net income

Two common and definitely sound uses of utility net income are for debt retirement and for expansion. The former use is of vital importance to those utilities for which initial financing was obtained by one form or another of borrowing. Through savings from operations, the utility is enabled to accumulate assets over and above plant and working capital requirements; and these may be used to liquidate bond issues or long-term advances from the governmental unit by which it was organized or sponsored. The second of the two uses mentioned above, to finance expansion, is of approximately equal importance. Growth of population, increased effective demand for utility service, and greater per capita consumption have combined to create a constant and growing need for the extension of plants into new areas and for a larger volume of production. Use of savings to finance expansion may be accomplished in one or both of two ways, as follows:

1. Going rates may be set high enough to produce a net income of sufficient volume to finance the estimated future increase in requirements for expansion when the demand arises. Such net income should be distinctly identified by transfer to an appropriated earnings account. Under this plan, present consumers appear to be providing funds to serve future customers; but even so, the investment might well be justifiable, since increased volume of service should tend to bring to present users the gain of lower rates.

2. Expansion requirements may be financed through the sale of revenue bonds, that is, bonds to be retired, perhaps serially, from collections of current revenue and to be secured by a lien on such revenue. Although possibly not as conservative as the method of prior financing discussed above, this plan has the virtue of drawing directly upon the new or larger users of service as well as upon those whose needs are already being adequately met.

Unfortunately, not all actual uses of utility net income are as sound as the two discussed above. It is not possible to summarize in a few words the various uses which are made of it in actual practice. Although subject to state regulation, publicly owned utilities still enjoy a large degree of discretion and may do many things which, though not economically sound, are still within the sanction of law and subject to the action of their legislative bodies. One common use of utility net income is to provide a source of contribution to the general fund in lieu of taxes. To the extent that these contributions equal what the utility would pay under private ownership, the use is sound; but the transfer should be classified as an operating transaction rather than a distribution of net income. Actually, the amounts are not always determined on a logical basis, but depend upon the amount of net income, the nature of the relationships between the utility's governing body and that of the general government, public sentiment, political pressure, and so on.

In some instances, utility net income has been used and is still being used to finance general government in excess of what the organization would pay on a straight taxation basis. Generally speaking, this practice is popular with citizens and is defended by public officials on the ground that as long as utility consumers pay no more than they would pay under private ownership, the use of savings for public purposes is not only justifiable but also sound. An opposing school of thought holds that governmental service should be furnished at cost and that utility service is no exception; therefore, over a period of time, rates should be only high enough to pay all actual costs of the utility itself, thus preventing an accumulation of surplus assets for general usage. Furthermore, they hold, there is no good reason why a citizen should contribute to the cost of general government in proportion to his use of utility service; and to collect taxes through utility bills tends to conceal part of the cost of government.

Conclusion

In the present and preceding chapters an attempt has been made to set forth what appear to be sound practices and procedures in accounting for publicly owned enterprises. Emphasis has been laid upon the three major kinds of service—water, electricity, and gas—not only because of their importance from a frequency and volume standpoint, but also because the varied nature and limited regulation of other kinds of enterprises makes it impossible to generalize about them to the extent possible for the three

types mentioned. Even though general agreement may be reached on what accounting for publicly owned enterprises ought to be like, it should be kept in mind that many kinds of local circumstances and conditions militate to prevent the adoption of improved practices, even though the officials in charge might personally wish to do so. These facts should always be kept in mind in examining financial statements of publicly owned utilities and in passing upon their accounting practices, for any reason whatever.

If an accounting manual for a given kind of governmental enterprise cannot be obtained through normal channels, correspondence with a unit of such an enterprise may evoke helpful information.

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QUESTIONS

1. In Problem 6 (below), information item (1), it is directed that depreciati of tangible fixed assets and amortization of plant acquisition adjustm since acquisition of the plant should be charged to Retained Earnin Why Retained Earnings and not current expense accounts?
2. If a utility has a major plant improvement project in progress, it is allow to charge depreciation on any unit or part that is completed and service. Is this merely a concession granted to the utility or is there go logic to support it? Explain.
3. In accounting for fixed assets of a nonutility enterprise of a commerc nature, the major purpose probably is obtaining reasonable allocations cost. Accounting for fixed assets of a utility serves that purpose a another of almost equal importance. What is it?
4. An electric utility which owns and operates a very large power transm sion system maintains detailed records of charges in splicing of cab particularly as they affect diameter and length. How can the cost of tl effort be justified?
5. Utility line crews often engage in sizable projects related to alrea existing transmission systems. Describe briefly what devices, plans, methods should be employed to obtain correct account classification direct labor, materials, supplies, and equipment use charged to such project.
6. In his annual report, a city auditor criticized the administrative officials a utility for using depreciation fund assets to increase the utility plant, th is, to build more lines. In the absence of other information, what is yo opinion of his criticism?
7. *a*) A utility bills its customers separately for service and for sales tax Should the amount of sales taxes billed be included in utility revenu
   b) Suppose that a utility is not allowed to bill customers for the sal tax. However, rates have been raised approximately by the amount the tax. Should the revenues be reduced by the amount of the sal tax?
   c) Using assumed amounts, give entries to illustrate the billing and co llection, and the payment of taxes, in each of the above cases.

   (State of Kansa
8. Frequently it is not possible to distribute all amounts in clearing accour before the close of the fiscal period. How should undistributed amoun be shown in the financial statements?
9. A governmental utility sought to issue bonds to finance the cost of major expansion program. The action was opposed by a militant organiz tion which contended that need for the bond issue resulted from mi

management. Spokesmen for the organization asserted that over a period of several years the utility had made large contributions to the city's general fund, which action had been highly favorable to railroads and other large corporations in that it reduced substantially their property taxes. What do you consider to be the main points or issues in this controversy?

10. What are the meanings of "original cost" and "adjustment account" as used in public utility accounting?

(AICPA)

11. Under the composite system of depreciation of fixed assets, it is said that recorded depreciation of units of utility fixed assets frequently exceeds the total cost of the unit. Does this result in an advantage to the utility in the measurement of its gain or loss? Explain.

PROBLEMS

1. Below are described some unrelated transactions of kinds experienced primarily by organizations engaged in providing conventional electric utility service. You are required to prepare entries in general journal form to record the transactions. Explanations are not required.

(1) A customer who had failed to pay his electric bill of $14 the preceding month paid that bill and the current month's bill of $12.60 within the present month's discount period. The rate of penalty on delinquent bills was 6 percent.

(2) The Transportation Expenses—Clearing account balance was distributed on the basis of the following information:

Cost charged to hauling poles for a new power line	$150.00
Cost of transportation service performed for a private individual	17.50
Cost incurred in connection with dismantling a power line	269.00
Cost incurred in hauling material for a new building being erected by the utility's own working force	188.00
Cost incurred in hauling coal for the utility's power plant	74.40
Balance of account before clearing	$698.90

(3) Financial costs related to a building in process of construction were capitalized. The following were included:

(a) The appropriate amount of financial expense related to a $400,000 issue of 15-year term bonds, floated to finance the building. The bonds bore interest at 3 percent per year and were sold at a discount of $7,200. The bonds were issued and construction of the building was begun and completed during the present year. The building was ready for use eight months after construction was started. Discount amortization and interest for the year had been charged to Interest on Long-Term Debt.

(b) $1,200 interest on the utility's own money was recorded as a cost of construction of the building.

(4) Correction was made by appropriate debits and credits, and a transfer of cash, of an error in recording cost of a short stretch of line added to the transmission system (Poles and Fixtures). The outlay of $3,780 which should have been made from construction cash had been made from replacement fund cash and debited to Allowance for Depreciation—Poles and Fixtures.

(5) During the year $29,760 cash was received from customers as advances in aid of construction. Also, during the year, $3,920 of customers' credit so established was applied against charges to customers for electric service received. (Record as separate transactions.)

2. A building recorded under the general heading of Transmission Plant—Structures and Improvements was scheduled for demolition and removal. The work order and other documents related to the operation showed the following information:

Cost of structure to be demolished	$18,200.00
Material consumed in demolition process	20.00
Labor	1,260.00
Equipment rental charges	1,220.00
Supervision	50.00
Total costs	$20,750.00
Less: Sales of salvage	810.00
Net Costs	$19,940.00

You are required to do the following things:

a) Make the entries for retirement of the structure in the manner described for such operations in the text. In charging the current costs of the retirement (materials, labor, etc.), a Various Expenses account may be credited for the total. Give brief explanations for your entries.

b) State whether the accounting procedure used in your entries embodies the use of the individual unit system or the composite system of depreciating fixed assets.

c) State what justification there is for debiting the depreciation allowance for more than the cost of the asset being retired.

3. This problem refers to Illustration 12–3 and requires a comparative statement of income and expenses for the fiscal years ended April 30, 1968 and 1969. In the various sections as indicated, and in the same order as they appear in the fiscal 1968 statement, amounts for fiscal 1969 were as follows:

Sales of water: $680,000; $118,000; $211,000.
Other water revenues: $4,800; $2,400; $12,900.
Operating revenue deductions: $751,100; $199,200; $41,300.
Nonoperating income: $1,250; $1,050.
Nonoperating expenses: $17,300; $350; and amortization of discount on bonds payable, $230.
Appropriation of net income: $27,000 or less.

You are required to do the following things:

a) Using an appropriate heading, prepare the comparative statement, with money and percentage columns as indicated below and following the form of organization employed in Illustration 12–3. Calculate percentages of change to nearest whole percent.

			*Increase–Decrease**	
	1969	*1968*	*Amount*	*Percent*
Operating revenues:				
Sales of water:				
Metered sales to customers	$680,000	$640,000	$40,000	6

b) A major increase in fiscal 1969 was in operating expenses, a considerable part of which was caused by a salary and wage increase averaging about 5 percent of 1968 salaries and wages. Other substantial changes in the financial structure of the system occurred during the year. The effects of these changes may be observed in changes in certain items that are commonly referred to as fixed charges. Identify these changes and state what you think may have occurred to produce them.

c) It will be noted that the appropriation or transfer of net income to a sinking fund reserve for 1969 was less than for 1968. State whether you think the sinking fund reserve was increased by only $21,920 for 1969 and explain your position.

4. The East Monroe Water Corporation was formed as a nonprofit organization to accomplish the construction of a rural water distribution system and to operate it after completion. The Midstate Engineering Company was employed to provide technical advice and service in planning and constructing the system. Four hundred twelve persons paid a *membership fee* of $60 each but at the date of this calculation the *hook-on fee* of $50 had been paid for only 369 hook-ons. A loan commitment (contractual promise) of $484,000 was received from an agency of the federal government. The loan was to be a 5 percent debt, to run for 40 years after beginning of construction, with repayments of principal to commence during the third year. The loan commitment would be drawn upon as needed during the estimated 210-day construction period. Annual payments of $28,700 (approximately) are to be made for interest and debt amortization on the $484,000 loan during the last 38 years of the 40-year period (interest, only, payable during the first 2 of the 40 years).

A detailed schedule of estimated usage by customers, classified by volume, was prepared for the first two years. Monthly usage was forecast at 1,960 thousand gallons per month for the first two years, with a 100-thousand-gallon total increase in the third year.

The consulting engineers listed as estimated "construction" costs the following items: original bid by lowest and best bidder, $356,881; assessment by water supplier to cover additional cost of supply mains, $31,583; increase in contract price for customers added between submitting of bids and beginning of construction, $45,057; provision for construction contingencies (approximately 5 percent of other "construction" costs), $21,480. "Non-construction" costs estimated by the consulting engineers were as follows: preliminary engineering and planning, $32,100; inspection during construction, $9,100; special water report, $1,100; legal and administrative expense, $10,500; land costs, $1,000; interest during construction, $11,000; cost of obtaining easements, permits, and right-of-way, $2,000; public service commission hearing, $1,500; project contingencies, $4,350.

Estimates of operating maintenance and interest costs for each of the first 2 years were as follows: wages and salaries, $2,400; fringe benefits, $150; office expense, $500; insurance, bonds, and fees, $250; materials and supplies, $150; payments to city for water supplied (water purchased), $0.35 per thousand gallons on usage indicated in the second paragraph of this problem; interest charges, $18,000 and $24,200, first and second years, respectively.

For the third year, cost estimates were the same as for the first 2 years with the following exceptions: (1) required reserve (round to nearest whole dollar) for additions and betterments at 1.3 percent of total project cost; (2) debt service requirement as explained in the first paragraph (not to be divided between principal and interest payments); (3) increase in water metered to the corporation by the city.

Using pertinent information from the foregoing paragraphs and assuming, as the engineers did, that annual revenue amounts and costs are on a cash basis, you are required to do the following things:

a) Assuming that all water purchased each year would be sold at a simple average rate of $2 per thousand gallons, which was the rate compiled from the detailed schedule of usage, calculate the estimated operating revenue of the utility for each of its first three years of operation.

b) Prepare a two-part statement of estimated total project costs, with construction and nonconstruction costs itemized in separate sections. Ignore questions of propriety of classification of items as they were made by the engineers.

c) Using the engineers' and directors' estimates, prepare an itemized statement showing estimated operation, maintenance, and other annual costs for each of the three years. List names of items at the left with columns for the three years at the right.

d) Ignoring possible cash from income on temporary investments and all other sources than sales of water, prepare a brief summary showing estimated cash on hand at the end of each of the first three years of operation. For this statement annual costs need not be itemized. Use total costs compiled for part (*c*).

e) Assuming that the corporation's debt service program is carried out exactly as planned, state how much interest will have been paid at the loan's retirement.

f) Based upon the information available in this problem, state how close the corporation came to budgeting for prompt payment of all construction and nonconstruction costs. Assume (as was true) that no operating revenue was available until the project was substantially completed.

5. TOWN OF WASHINGTON

Municipal Electric Light and Power Fund
After-Closing Trial Balance
December 31, 1968

	Debit	*Credit*
Structures and improvements	$ 640,000	
Allowance for depreciation		$ 160,000
Machinery and equipment	290,000	
Allowance for depreciation		74,000
Utility plant acquisition adjustment	39,000	
Allowance for amortization		18,000
Construction in progress	110,000	
Land	24,000	
Cash—operating	19,000	
Cash—construction	27,000	
Accounts receivable	41,000	

Estimated uncollectible accounts		$ 5,000
Accrued utility revenue	$ 8,400	
Materials and supplies	17,500	
Prepaid expenses	6,300	
Investments—replacement fund	176,000	
Accrued interest—replacement fund	1,400	
Cash—customers' deposits	210	
Investments—customers' deposits	9,600	
Accrued interest income—customers' deposits	280	
Investments—sinking fund	44,000	
Accrued interest—sinking fund	800	
Unamortized discount on bonds payable	1,200	
Preliminary survey charges	1,760	
Bonds payable		300,000
Vouchers payable—operating		22,000
Vouchers payable—construction		34,000
Contracts payable		70,000
Accrued expenses		16,400
Customers' deposits		9,690
Accrued interest expense—customers' deposits		150
Reserve for replacements		177,400
Reserve for sinking fund bonds payable		44,800
Contributions from customers		16,500
Municipality's contribution		200,000
Retained earnings		309,510
	$1,457,450	$1,457,450

You are required to do the following things:

a) Copy the above trial balance on columnar paper, providing three pairs of money columns beyond the trial balance. It would be well to allow two lines for each of the following accounts: Construction in Progress, Accounts Receivable, Cash—Customers' Deposits, Customers' Deposits, and Accrued Interest Expense—Customers' Deposits. Three lines each are desirable for Cash—Operating and Vouchers Payable—Operating.

b) In the second pair of money columns enter the January, 1969, transactions. For purposes of this problem, post-closing or reversing entries for January 1, 1969 are to be omitted. To economize on time all transactions affecting income may be entered to Income and all affecting expense may be entered to Expense. Approximately three lines should be allowed for the former and eight lines for the latter.

c) After January, 1969 transactions have been recorded, enter the balances of Income and Expense accounts in the third pair of money columns, and January 31 balances of balance sheet accounts in the fourth pair. Complete the worksheet in the usual manner.

d) Prepare a balance sheet for the fund at January 31, 1969.

The following transactions occurred:

(1) Sales of electric energy billed to customers during the year totaled $121,700.

(2) Cost of operating and administrative expenses (wages, salaries, fuel, supplies, etc.) totaled $97,240, which amount, plus $6,000 bond interest expense, was vouchered for payment.

(3) Based upon engineers' certificates, liability was recorded for $40,000 additional which had been expended by the contractor on the structures and improvements in progress.

(4) One unit of the construction in progress was certified as completed and its cost of $50,000 was transferred to structures and improvements.
(5) $75,000 of contractors' claims were vouchered for payment.
(6) During January $114,000 of accounts receivable were collected, to which was added $460 for payment after the discount period had expired.
(7) Investments costing $12,000, with accrued interest of $200, were purchased as replacement assets and vouchered for subsequent payment from operating cash.
(8) Because of progress on the work to which they applied, preliminary survey charges of $300 were transferred to construction.
(9) Materials and supplies were purchased and vouchered for payment in the amount of $9,700.
(10) $410 for meter deposits was collected from customers during January and because of discontinued service, $150 of meter deposits, plus $10 accrued interest on deposits, was paid to customers.
(11) Accounts receivable in the amount of $850 were disposed of during January, on account of nonpayment. Customers whose accounts were written off had meter deposits of $120 and the amount of accrued interest expense owing to them was $5. The appropriate transfer of cash was made.
(12) $100,000 par value of bonds payable were sold at 98, to finance construction.
(13) Payments on vouchers payable during January totaled $104,000, operating, and $103,000, construction.
(14) Interest on investments received in cash during January was as follows (credit income accounts):

Replacement fund (operating cash)	$430
Customers' deposits fund	20
Sinking fund (operating cash)	150

(15) Since most accruals and prepayments are increased and decreased in the normal operations of business, the town of Washington assumed that net changes in most accruals and prepayments from month to month are not worth calculating and recording, except at the end of the year. One exception to this general rule was materials and supplies, of which the January 31 inventory showed a balance of $12,400.
(16) Other adjustments ordinarily recorded on a monthly basis were:

Estimated loss on bad debts during January	$ 180
Amortization of discount on bonds payable	400
Amortization of utility plant acquisition adjustment	150
Depreciation of structures and improvements	1,250
Depreciation of machinery and equipment	1,160

6. Early in 1969 the town of Crawford utility board decided, upon competent advice, to discontinue budgetary accounting for the electric utility of that municipality. The after-closing trial balance of the utility of June 30, 1969, is given below. All budgetary accounts are to be removed, and proprietary accounts are to be adjusted and added, based upon the supplementary information given, to comply with the board's decision.

TOWN OF CRAWFORD

Electric Utility Fund
Trial Balance, June 30, 1969

	Debit	*Credit*
Accounts payable—bond fund		$ 32,000
Accounts payable—operating		16,500
Accounts receivable	$ 22,670	
Accrued bond interest		480
Appropriations		400,000
Bonds authorized—unissued	40,000	
Cash—bond fund	30,000	
Cash—deposits fund	1,700	

Cash—operating	$ 8,060	
Accrued interest earned—deposits fund	240	
Accrued interest expense—deposits fund		$ 330
Investments—deposits fund	19,500	
Cash—sinking fund	3,180	
Deposits payable		20,650
Prepaid expenses	12,030	
Estimated uncollectible accounts		1,230
Expenditures—bond fund	362,000	
Investments—sinking fund	18,400	
Accrued interest earned—sinking fund	160	
Reserve for retirement of sinking fund bonds		18,760
Unappropriated surplus—deposits fund		460
Unappropriated surplus—sinking fund	1,020	
Unappropriated surplus—general		19,250
Due to brokers—sinking fund		4,000
Accrued payroll		5,300
	$518,960	$518,960

The unusual arrangement of accounts in the above trial balance relates to the special requirements of the problems.

Additional information to be used in recording the conversion included the following:

(1) The utility plant and equipment had been provided by the municipality at a total cost of $455,000. This represented book value of tangible fixed assets at date of acquisition, plus acquisition premium. An appraisal of the contributed plant showed cost and accumulated depreciation as follows:

Item	*Estimated Cost New*	*Estimated Depreciation When Bought by Municipality*	*Estimated Depreciation, June 30, 1969*
Buildings, structures, and improvements	$450,000	$120,000	$150,000
Equipment	110,000	40,000	60,000
Land	25,000		
	585,000	$160,000	$210,000

The acquisition premium of $30,000 applied to the buildings, structures, and improvements. No depreciation of fixed assets and no amortization of the premium have been recorded since acquisition, thus causing an overstatement of earnings. The state utility commission has authorized an unamortized balance of $24,000 for the premium at June 30, 1969. (Charge Retained Earnings for amounts of depreciation and amortization since acquisition.)

(2) Bond fund expenditures represent accumulated payments on an expansion project in progress. Maintenance of a bond sinking fund by the utility indicates the bonds will be paid by the utility.

(3) A total of $12,780 interest has been paid and accrued on the bonds to date. This interest has been charged to operations.

(4) New equipment costing $31,000 has been purchased by the utility and charged to operations. Estimated depreciation on this to June 30, 1969, is $3,200.

You are required to do the following things:

a) Record the trial balance of June 30, 1969 on columnar paper or in T accounts. If columnar paper is used it would be advisable to leave two lines for each new account.

b) Make the following adjustments and corrections to bring Crawford's electric utility accounts into conformity with generally accepted practices:

(1) Record the municipality's contribution of fixed assets to the electric utility fund, using amounts as of date received by the utility.
(2) Make the entry or entries required to adjust the book value of the fixed assets which had not been accounted for in the utility fund, from the date of acquisition to June 30, 1969. (Unappropriated Surplus is to be replaced with Retained Earnings.)
(3) Make the appropriate entry to correct the accounting for bond fund expenditures, assuming the bonds are to be accounted for in the electric fund.
(4) Set up $360,000 par value of bonds outstanding to replace the $400,000 bond fund appropriation and the $40,000 of bonds authorized but unissued.
(5) Make the appropriate entry to correct for bond interest which has been paid by the utility.
(6) Set up as of June 30, 1969, the book value of new equipment bought and charged to expense.
(7) Since accumulation funds do not properly have surplus accounts, close that of the town of Crawford's electric utility deposits fund into Retained Earnings, and do the same for Unappropriated Surplus—General.
(8) Adjust Reserve for Retirement of Sinking Fund Bonds to the approved basis described in the text.

c) Prepare a trial balance on your columnar paper or from your T accounts, for Crawford's electric utility fund after revision as of June 30, 1969.

7. The State Gas Company follows the practice of cycle billing in order to minimize peak work loads for its clerical employees. All customers are billed monthly on various dates, except in those cases when the meter readers are unable to enter the premises to obtain a reading.

The following information for the year ended September 30, 1969, is presented by the company:

Cycle	*Billing Period*	*Customers Billed*		*Customers Not Billed*
		Number	*Amount*	
1........	Aug. 7–Sept. 5, inclusive	2,760	$13,800.00	324
2........	Aug. 12–Sept. 10, inclusive	3,426	13,704.00	411
3........	Aug. 17–Sept. 15, inclusive	3,265	14,692.50	335
4........	Aug. 22–Sept. 20, inclusive	2,630	12,492.50	370
5........	Aug. 27–Sept. 25, inclusive	3,132	13,311.00	468

You are further advised that all customers have been billed for prior periods and that the company's experience shows that charges for those customers whose meters were not read average the same amount as the charges for the customers billed in their cycle. In addition, the company assumes that the customers' usage will be uniform from month to month.

From the above information, compute the unbilled revenues of the company as of September 30, 1969, arising from cycles No. 1 and No. 3. (Do not compute revenues from cycles 2, 4, and 5.)

(AICPA, adapted)

8. At September 30, 1968, the city of Sumpter's municipal airport fund had the following balance sheet:

CITY OF SUMPTER
Municipal Airport
Balance Sheet
September 30, 1968

Assets			
Current Assets:			
Cash in bank		$ 14,202.92	
Cash on hand		93.58	
Petty cash fund		500.00	
Accounts receivable	$ 10,072.05		
Less: Estimated uncollectible accounts	563.78	9,508.27	
Due from other governmental agencies		84,182.24	
Inventories—gasoline and oil		4,104.78	
Total Current Assets			$112,591.79
Fixed Assets:			
Improvements in use	$821,418.70		
Less: Allowance for depreciation	245,711.71	$575,706.99	
Construction contracts in progress		176,931.20	
Total Fixed Assets			752,638.19
Total Assets			$865,229.98
Liabilities and Surplus			
Current Liabilities:			
Accrued payroll		$ 1,283.10	
Contracts payable		180,843.68	
State sales tax payable		11.16	
Due to other funds—light and water fund		63.49	
Total Current Liabilities			$182,201.43
Surplus:			
Equity in fixed assets		$752,638.19	
Unappropriated surplus (deficit)		69,609.64	
Total Surplus			$683,028.55
Total Liabilities and Surplus			$865,229.98

During the fiscal year ended September 30, 1969, the following transactions, stated in summary form, occurred:

(1) Revenues accounts were increased as follows during the year:

Rents and Storage	$33,669.00
Landing Fees	6,378.17
Miscellaneous Revenue	1,155.36
Sales of Gasoline and Oil	99,802.95

Of the total revenue of the year, $91,870.50 was charged to "Due from Other Governmental Agencies" and the balance to Accounts Receivable. Accounts Receivable was charged at the same time for state sales taxes of $9,418.

(2) The following expenses were vouchered during the year:

Wages	$43,040.56
Supplies expense	2,824.11
Repairs and maintenance	23,107.12
Communications	445.91

Insurance and bonds	$ 215.86
Special services	431.41
Retirement and Social Security	2,874.40
Other charges	1,500.91

(3) Utilities account was charged for $9,055.12 for services from the municipal light and water fund.
(4) Gasoline and oil purchases of $60,808.37 were vouchered.
(5) The September 30, 1968 accrued payroll, $120,864 of contracts payable, $9,320 of state sales taxes payable and $9,050 due to other funds were vouchered during the year.
(6) Collections (Cash on Hand) of accounts receivable during the year were $44,866.05, and $350 was written off as uncollectible.
(7) Additional expenditures on the construction in progress in the amount of $7,600 were added to unpaid contracts.
(8) Improvements completed and put into use during the year had a total cost of $151,600.
(9) Reimbursements of the petty cash fund during the year are included in transaction (2). The fund had been cleared of all expense vouchers before the close of business on September 30, 1969.
(10) Cash on hand was increased by the amount of $103,900 which was received from other governmental agencies.
(11) A six months' loan of $125,000, interest payable at maturity, was obtained from the airport's depository on September 30, 1969 and credited to the airport's checking account.
(12) The only cash which had not been deposited at September 30, 1969 was the amount of $117 and the $500 petty cash fund.
(13) Following its usual custom, the airport had liquidated all vouchers payable on or before the year end.
(14) Estimated loss on bad debts for the year was $450, depreciation of improvements, $49,620, and accrued wages at year end were $1,590.
(15) Gasoline and oil inventory was $5,029 at year end.

You are required to do the following things:

a) Start from the account balances shown in the airport fund balance sheet and record the fund's transactions for the year ended September 30, 1969. This may be done by journal entries and postings to T accounts, or by direct posting from transactions to T accounts.

b) Prepare a trial balance for September 30, 1969.

c) Prepare a statement of income and expense for the fiscal year ended September 30, 1969. Show sales of gasoline and oil first, then a Cost of Sales section for gasoline and oil, then a gross margin figure, followed by other income items, to arrive at a gross income figure, which should be followed by a listing of expenses. (Net loss after depreciation, $54,034.07.)

d) Alternative to (*c*): Prepare a balance sheet for the fund at September 30, 1969, taking into account the following information: following preparation of the income and expense statement, the amount of depreciation for the year was added back to the result of the year's operations if the result was a gain, or subtracted if it was a loss. Likewise, increase in total of improvements, plus construction contracts in progress, was deducted from the result of operations for the year if a gain, or added to it if a loss. Each year's change in Equity in Fixed Assets was the difference between increases in the two fixed asset accounts and depreciation charged for the year. If depreciation was the greater, the change in equity was a reduction. Recognizing that your balance sheet is, in a manner, two balance sheets in one, state whether

you think that procedure was arbitrary or contained a measure of logic.

e) State what change or changes you would recommend to be made in the airport's chart of accounts.

f) The airport to which this problem relates regularly has very substantial losses. State how you think it stays in existence in the face of continuing high losses. (The answer to this query was not present in the fiscal 1969 transactions.)

9. The city of Larkspur provides electric energy for its citizens through an operating department. All transactions of the Electric Department are recorded in a self-sustaining fund supported by revenue from the sales of energy. Plant expansion is financed by the issuance of bonds which are repaid out of revenues.

All cash of the Electric Department is held by the city treasurer. Receipts from customers and others are deposited in the treasurer's account. Disbursements are made by drawing warrants on the treasurer.

The following is the post-closing trial balance of the department as of June 30, 1968:

Cash on deposit with city treasurer	$ 2,250,000	
Due from customers	2,120,000	
Other current assets	130,000	
Construction in progress	500,000	
Land	5,000,000	
Electric plant	50,000,000*	
Accumulated depreciation—electric plant		$10,000,000
Accounts payable and accrued liabilities		3,270,000
5 percent electric revenue bonds		20,000,000
Accumulated earnings		26,730,000
	$60,000,000	$60,000,000

* The plant is being depreciated on the basis of a 50-year composite life.

During the year ended June 30, 1969, the department had the following transactions:

(1) Sales of electric energy, $10,700,000.
(2) Purchases of fuel and operating supplies, $2,950,000.
(3) Construction of miscellaneous system improvements (financed from operations), $750,000.
(4) Fuel consumed, $2,790,000.
(5) Miscellaneous plant additions and improvements placed in service, $1,000,000.
(6) Wages and salaries paid, $4,280,000.
(7) Sale on December 31, 1968, of 20-year, 5 percent electric revenue bonds, with interest payable semiannually, $5,000,000.
(8) Expenditures out of bond proceeds for construction of Larkspur Steam Plant Unit No. 1 and control house, $2,800,000.
(9) Operating materials and supplies consumed, $150,000.
(10) Payments received from customers, $10,500,000.
(11) Expenditures out of bond proceeds for construction of Larkspur Steam Plant Unit No. 2, $2,200,000.
(12) Warrants drawn on city treasurer in settlement of accounts payable, $3,045,000.
(13) Larkspur Steam Plant placed in service on June 30, 1969.

Required: A work sheet of the revenue fund of the Electric Department, showing:

a) The balance sheet amounts at June 30, 1968.

b) The transactions for the year. (NOTE: Journal entries supporting your transactions are not required.)

c) The balance sheet amounts at June 30, 1969.

d) The sources and applications of funds during the year.

(AICPA, adapted)

CONTINUOUS PROBLEM

12-L. The City Water Utility is owned and operated by the city of Bingham. The water utility was originally constructed and operated by a private corporation but was sold to the city 30 years before the date of the balance sheet below, which was prepared at the beginning of the current fiscal year.

CITY OF BINGHAM WATER UTILITY FUND

Balance Sheet as of July 1, 19—

Assets

Utility Plant:			
Utility plant in service	$6,235,695		
Less: Accumulated provision for depreciation	1,247,139	$4,988,556	
Property held for future use		25,000	
Construction work in progress		94,700	
Utility plant acquisition adjustments	$ 265,000		
Less: Accumulated provision for amortization	159,000	106,000	
Total Utility Plant			$5,214,256
Current and Accrued Assets:			
Cash		80,000	
Due from other funds		7,000	
Customer accounts receivable	$ 77,720		
Less: Accumulated provision for uncollectible accounts	2,360	75,360	
Materials and supplies		47,073	
Prepayments		3,340	
Total Current and Accrued Assets			212,773
Deferred Debits:			
Unamortized bond discount			32,600
Total Assets			$5,459,629

Proprietary Capital, Liabilities and Contributions

Long-Term Debt:		
Bonds, 3%, J and J 1, mature 20 years from balance sheet date		$4,260,000
Current and Accrued Liabilities:		
Accounts payable	$ 39,210	
Customer deposits	27,638	
Miscellaneous accruals	6,892	
Total Current and Accrued Liabilities		73,740
Contributions:		
Contributions from customers	$ 163,210	
City's contribution	425,000	
Retained earnings	537,679	
Total Contributions		1,125,889
Total Liabilities and Contributions		$5,459,629

Revenue and expense classifications and account titles proposed by the National Association of Railroad and Utilities Commissioners for use by water utilities include:

Operating Revenues:
 Sales of Water
 Other Operating Revenues
Operating Expenses:
 Operation Expense
 Maintenance Expense
 Depreciation Expense
 Amortization of Plant Acquisition Adjustments
 Contribution in Lieu of Taxes
Interest Charges:
 Interest on Long-Term Debt
 Amortization of Debt Discount
 Interest Charged to Construction (Credit)

You are required to:

a) Open a general journal for the Water Utility Fund and enter the following transactions as necessary. Use the account titles shown in the balance sheet and in the list below it.

(1) Billings to nonmunicipal customers for water service for the year totaled $1,040,568. Billings to the city of Bingham for water service totaled $12,000.
(2) Collections from customers totaled $1,047,768, from the city $10,750.
(3) Construction work authorized, including that to accommodate the extension of service to Irwinville (Problem 10–L), amounted to $234,000. As a part of this, a contract for $112,000 was signed with a private firm; the remainder of the work was to be done by water utility employees.
(4) Materials and supplies in the amount of $260,800 were ordered. All of these were received during the period except $4,800 worth. The invoices otherwise agreed with the purchase orders and receiving reports and were approved for payment. A perpetual inventory system is used for all materials and supplies.
(5) Payrolls totaling $289,765 for operations; $83,210 for maintenance; and $36,000 for construction were paid.
(6) Materials and supplies issued during the period amounted to $120,000 for operations; $52,000 for maintenance; and $84,000 for construction.
(7) All bond interest due during the year was paid. Debt discount was amortized on the straight-line basis.
(8) Interest of $8,500 was charged to Construction Work in Progress.
(9) A progress billing for $56,000 was received from the construction contractor and paid.
(10) Assets under construction at the start of the year and some of those started during the year were completed and placed in service. The costs incurred on this construction totaled $206,350.
(11) The water utility paid $178,342 to the general fund as a contribution in lieu of property taxes.
(12) Collection efforts were discontinued on bills amounting to $1,965; the customers owing the bills had paid deposits to the water utility of $660, on which $12 of interest had been accrued as of balance sheet date (this utility leaves the accrued interest on deposits in "Miscellaneous Accruals"); the remainder due was written off.
(13) Deposits amounting to $1,238 were applied to the final bills of customers discontinuing service; $36 of interest was accrued on these deposits. Additional deposits amounting to $1,460 were refunded by check to customers discontinuing service, as was $50 accrued interest on the deposits. Deposits totaling $3,427 were received from new customers.

(14) Accounts payable at year end totaled $43,610.
(15) Prepayments at year end were the same as at the beginning. Interest on deposits amounted to $628 (charge Operation Expense). Depreciation on utility plant was 2 percent of the beginning balance (round charge to the nearest dollar). The Accumulated Provision for Uncollectible Accounts should equal $1,650. Make these and all other adjusting and closing entries necessary at year end.

b) Prepare a balance sheet for the Water Utility Fund as of June 30, 19— —.

c) Prepare a statement of income and expense for the Water Utility Fund for the year.

Chapter 13

Fixed Assets

Notwithstanding untold billions of dollars of public money already invested in permanent property, with other billions added annually, accounting and reporting for fixed assets is a seriously neglected aspect of governmental administration. It is safe to say that a majority of governmental units have no formal organized record whatever of all the fixed assets they own. There are three principal reasons for this neglect:

1. Except for certain types of funds—especially intragovernmental service, trust, and enterprise funds—fixed assets are not normally included in fund financial structures and, therefore, have no bearing on fund financial condition.
2. Except for fixed assets belonging to the special types of funds mentioned above, depreciation is not included as a current cost of government.
3. The present general disposition of voters to evaluate a legislator's or chief executive's performance in terms of the buildings, highways, reservoirs and other costly new improvements he "gets" for his constituents tends to obscure the importance of maintaining what the community already owns. Acquisition is much more spectacular than preservation.

Parts of the following discussion will be equally applicable to all governmental fixed assets, whereas other sections pertain specifically either to fixed assets owned by individual funds or to general fixed assets. Where special reference is made to one or the other of the latter groups, that fact will be clearly noted.

Classification of fixed assets

A fivefold grouping of fixed assets is often used in governmental accounting. The names of the five classes are as follows:

Land
Buildings
Improvements Other than Buildings
Machinery and Equipment, or Equipment[1]
Construction Work in Progress

[1] For *general* fixed assets the title "Equipment" is recommended by the National Committee on Governmental Accounting and will be used when discussion narrows to general fixed assets.

Land includes all parts of the earth's surface owned by a governmental unit, regardless of the purpose or reason for which owned. Thus, it could range from land used as locations for public buildings in populous cities to undeveloped tracts in remote locations held as watersheds or for some undetermined future use. However, land held under lease is not owned and should be omitted from the accounts.

The nature of assets to be classified as Buildings is a matter of common knowledge; but if a definition is needed, perhaps they may be said to consist of those structures erected above ground for the purpose of sheltering persons or property. Improvements Other than Buildings consists of land attachments of a permanent nature, other than buildings, and includes, among other things, roads, bridges, tunnels, power lines, tracks, walks, walls, etc.

The category of Machinery and Equipment may be said to include movable assets of a permanent nature, although some very large items, such as electric generating equipment, are, for all practical purposes, a part of the location to which they are attached. Work in Progress, found among fixed asset accounts of utilities and in the general fixed assets group of accounts, is the accumulated cost to date of fixed assets not completed. Eventually, upon completion, the values represented by work in progress will be transferred to accounts of the Structures and Improvements or Machinery and Equipment categories, or to Land if the charges are for clearing, drainage, or similar costs.

Attention is directed to the fact that the foregoing classification is one of *groups* of assets. For practical purposes, at least, both Improvements Other than Buildings and Machinery and Equipment are likely to be accounted for in two or more general ledger accounts, as dictated by convenience and a desire for accuracy. Thus, instead of one account for machinery and equipment, there might be two or more accounts for different types of machinery and two or more accounts for different types of equipment. Subsidiary ledger accounts or other subsidiary records, as discussed elsewhere, must be maintained to record details of individual items covered by each controlling account.

Sources of acquisition

Governmental fixed assets are acquired through two main sources and a limited number of minor ones, as follows:

1. A substantial amount of governmental fixed assets have been procured through construction, and the process continues. Some governmental construction is accomplished through the governmental unit's own working organization; but because of the large working forces usually required on a more or less short-term basis, the independent contractor is relied upon most frequently. Construction by the governmental unit's own force may be provided through intragovernmental service, capital projects, special assessment, or enterprise funds, particularly the last three. Construction by private contractors is

furnished through the same funds, omitting the intragovernmental service type. In recent years, special revenue funds, financed by motor fuel taxes and vehicle licenses, have provided resources for great amounts of construction of highways, streets, and bridges.

2. The second major procurement source for governmental fixed assets is through outright purchase. This includes the larger portion of movable fixed assets owned by governments, as well as land, many buildings, and—in the utility field—complete operating units acquired from private owners. Resources for purchase have been and continue to be provided by bond funds, special assessment funds, and—in the case of smaller items such as machinery, automotive equipment, office equipment, etc.—directly by general and special revenue funds from current appropriations. Large amounts of land and buildings are now being acquired through lease-purchase contracts, financed from current revenue received by the lessee governmental unit. This method of acquiring such assets makes some difference in the accounting mechanics for recording the resulting transactions, but the final results are unchanged. Although acquired *through* a lease-purchase arrangement, the actual investment is by the fund or funds which furnished money to pay the lessors.

3. A substantial amount of fixed assets have been acquired through contributions by private individuals or agencies. Generally speaking, assets so acquired are for education, recreation, amusement, public health, or some other similar purpose; but these are not all-inclusive. Land, buildings, and equipment are the objects most often contributed or stipulated for purchase with monetary donations.

4. Grants-in-aid by higher governmental authorities have accounted for some fixed assets owned by states and units of local government. To date the amount of such aid has not been proportionately large, but it continues at an accelerating rate. The majority of assistance from state and federal governments has been applied to buildings and improvements other than buildings (streets, highways, bridges, sanitation systems, etc.), with minor portions to land and buildings.

5. A small amount of governmental fixed assets have been acquired through tax foreclosures and subsequently dedicated to public use rather than being sold.

Basis of accounting for fixed assets

As in commercial accounting, cost is the generally accepted basis of accounting for governmental fixed assets. Rules governing determination of what constitutes cost are comparable to those prevalent in commercial practice. As with privately owned utilities, those that are publicly owned observe certain special rules for cost classification. In fact, it may be repeated that rules for capitalizing expenditures of publicly owned utilities should be the same as those used by privately owned utilities operated within the same territory. This is true because of the inevitable demand for comparison of rates and operating costs between privately and publicly owned utilities. Expenditures improperly applied not only distort asset valuations but also affect the basis to be used subsequently for charging depreciation. On the other hand, neither governmental utilities

nor other funds are required to pay federal income taxes; so, to that extent, they are under less responsibility for meticulous differentiation between capital and revenue expenditures than are private enterprises.

As in commercial accounting, all costs of obtaining possession of, and clear title to, a fixed asset, in the condition in which it is to be used, are recognized as legitimate elements to be capitalized.[2] Insofar as possible, general procedures should be established for the identification of capital expenditures; and these should be adhered to in all cases. Governmentally owned utilities, as stated previously, should conform to the accounting requirements prescribed for privately owned utilities; and these are likely to include elaborate directions for defining fixed asset costs. In case of questionable items the doubt should be resolved against capitalization. To avoid uneconomical accumulation of details, minima are usually established below which no expenditure will be capitalized regardless of its intrinsic nature. Thus, it may be ruled that no expenditure of less than $25 *may be capitalized regardless of the permanence of its benefit.*

Land

The cost of land acquired by a governmental unit through purchase should include not only the contract price but also such other related costs as taxes and other liens assumed, title search costs, legal fees, surveying, filling, grading, drainage, and other costs of preparation for the use intended. Governments are frequently subject to damage suits in connection with land acquisition, and the amounts of judgments levied are considered capital costs of the property acquired. Land acquired through forfeiture should be capitalized at the total amount of all taxes, liens, and other claims surrendered, plus all other costs incidental to acquiring ownership and perfecting title. Land acquired through donation should be recorded on the basis of appraised value at the date of acquisition, or at one dollar if a reliable appraisal value is not obtainable. Cost of acquiring and protecting the title should not be capitalized, because that would be mixing appraised value and cost of the same thing in one account. However, if substantial costs are required for placing the property in usable condition, they may be capitalized because they represent *value* added to what was acquired by donation. Valuation of land obtained by donation is of importance chiefly for report, statistical, and other comparative purposes.

Buildings and improvements other than buildings

The determination of the cost of buildings and improvements acquired by purchase is relatively simple, although some peripheral costs may be of doubtful classification between capital and revenue. The price paid for the assets constitutes most of the cost of purchased items; but legal and other costs, plus expenditures necessary to put the property into acceptable

[2] For exceptions, see the discussion under "*Land*."

condition for its intended use, are proper additions. The same generalizations may be applied to acquisitions by construction under contract; that is, purchase or contract price, plus positively identified incidentals, should be capitalized. The determination of the cost of buildings and improvements obtained through construction by some agency of the governmental unit is attended by slightly more difficulty. In these cases, costs should include not only all the direct and indirect expenditures incurred by the fund providing the construction but also materials and services furnished by other funds as well. Details on items to be capitalized in the cost of buildings and improvements constructed may be found in the chapters on intragovernmental service, capital projects, special assessment, and enterprise funds. As for land acquired through donation, the valuation of buildings and improvements so acquired should be established by appraisal. Acquisition, rehabilitation, and improvement costs related to donated buildings and improvements should follow the pattern recommended in the case of land. Also as in the case of land, the chief reason for setting a value on donated buildings and improvements is to aid in determining the total value of fixed property used by the government, for reports and comparisons.

What about pre-owned buildings and improvements acquired by governmental units—for example, those that are components of utility plants acquired from private owners? Should they be set up at cost with appropriate valuation allowances, or at net cost to the new owner? To illustrate, if a building which originally cost $25,000 and which has been depreciated in the amount of $10,000 is acquired for $20,000, at what figure should it be recorded in the governmental unit's records? The answer to this question depends upon the wishes of the new owner, along with legal requirements which prevail. If for any reason the governmental unit desires or is required by regulations to record original cost, that basis may be used; and if not, net book value, actual cost, or apportioned cost may be set up.

Machinery and equipment, or equipment

Machinery and equipment are most likely to be acquired by purchase, although construction by an intragovernmental service fund may be the source in some instances, in which case the same rules will apply as for structures and improvements constructed by the government's own working force. The cost of machinery and equipment purchased should include the items conventional under commercial accounting practice: purchase price, transportation costs if not included in purchase price, installation cost, and other direct costs of readying for use. Should cash discounts on governmental fixed assets purchased be treated as a reduction of costs or as financial income? On this question, there is general agreement that cash discounts on purchase of fixed assets should be treated as cost deductions. The reason for this will not be explained here. It is a

topic ordinarily discussed in books on intermediate and advanced accounting. Partially depreciated machinery and equipment acquired by a governmental unit may be accounted for either on the basis of original cost or on the basis of depreciated value, depending upon the wishes of those in authority.

Construction work in progress

This is a temporary stage in the procedure of converting and combining labor, materials, and overhead into a completed fixed asset. As a fixed asset classification, it is peculiar to enterprise funds and the general fixed assets group of accounts. The Construction Work in Progress (or Process) account, sometimes required in intragovernmental service fund accounting, is not a fixed asset account of that fund but merely a summary of costs accumulated to date on projects for the benefit of other funds.

In utility funds, Construction Work in Progress may appear among the fixed asset accounts as a compilation of costs incurred to date in the construction of structures, improvements, machinery, and equipment. Typical charges to such an account on enterprise fund books would come from payrolls for labor applied, from stores or purchases for materials used, from expense accounts for amounts of expenses applicable to construction, and from clearing accounts for items temporarily unclassified but subsequently identified as construction costs. From Construction Work in Progress, costs emerge as total costs of completed assets, usually in the categories of plant, structures, or improvements, but possibly in others. As indicated elsewhere, the total cost of enterprise fixed assets constructed will include not only those items accumulated through the Construction Work in Progress account, but also certain capital costs applicable to the construction period. Depreciation is not recorded on work in progress, except as to units completed and in operation.

Activities of capital projects funds and special assessment funds for construction give rise to work in progress, but formal recognition of the fact is not often given in the accounts of those funds. As described in the appropriate chapters, construction expenditures by those funds are ordinarily closed into Fund Balance at the end of each year, but the amounts are not capitalized in the funds doing the construction: the amounts are set up under the caption of Construction Work in Progress in the general fixed assets groups of accounts, assuming that only fixed assets for general use issue from the funds mentioned. As to enterprise funds, general work in progress eventually develops into a fixed asset of some finished form in the fund.

Cost after acquisition

Governmental accounting procedures should include clear-cut provisions for classifying costs incurred in connection with fixed assets after the original cost has been established. Expenditures closely associated with

fixed assets will regularly occur in amounts of varying size, and responsible persons will be charged with deciding whether these are of a revenue nature or represent additions of permanent value. Utilities ordinarily will be governed by well-defined rules and regulations, as stated previously; and in case of borderline items, the management may refer to the appropriate regulatory commission for an opinion.

In general, it may be said that any expenditure which definitely adds to a fixed asset or enhances the value of an integral part of it may be classified as a capital item. Thus, drainage of land, addition of a room to a building, and changes in equipment which increase its output or reduce its cost of operation are clearly recognizable as capital expenditures. Special difficulty arises in the case of large-scale expenditures which are partly replacements and partly additions or betterments. An example would be replacement of a composition-type roof with a roof of some more durable material. To the extent that the expenditure replaces the old roof, it should not be capitalized unless cost of the old roof is removed from the accounts; and to the extent that it provides a better roof, it should be capitalized. The distribution of the total cost in such a case is largely a matter for managerial determination. As suggested elsewhere, the need for exact discrimination between capital and revenue expenditures is not so pressing in government as in business, with an inclination toward the expenditure classification in all doubtful cases. Consistent with policy in recording original acquisition costs, some expenditures unquestionably representing increases in permanent values may, for convenience, be arbitrarily classified as of a revenue nature if the amount is less than some specified minimum or on the basis of any other criterion previously decided upon.

Expenditures that are partly replacements and partly additions or betterments occasion some accounting difficulty. The distribution of the expenditure having been decided upon, the estimated amount of addition or betterment might be added to the asset. Perhaps better results might be obtained by crediting the appropriate asset account for the cost of the replaced part, thus removing the amount, and then debiting the asset account for the total cost of the replacing item. If the replaced part relates to a depreciable asset of an IGS, trust, or enterprise fund, the accumulated depreciation would have to be removed along with the cost of the replaced item.

Reduction of cost

Reductions in the cost of fixed assets may relate to the elimination of the total amount expended for a given item or items, or they may consist only of removing the cost applicable to a specific part. Thus, if an entire building were demolished, the total cost of the structure should be removed from the appropriate accounts; but if the separation applies only to a wing or some other definitely identifiable portion, the cost eliminated

should be the amount estimated as applying thereto. Reductions in the recorded cost of fixed assets may be brought about by sale, retirement from use because of total depreciation, destruction by fire or other casualty, replacement of a major part, theft or loss from some other cause, and possibly other changes. The cost of fixed assets held by one fund may sometimes be reduced by the transfer of a unit to another fund; for the governmental unit, however, this does not constitute a reduction but merely a shift.

Accounting for cost reductions consisting of entire units is a relatively simple matter if adequate records have been kept. Entries must be made in both controlling accounts and subsidiary ledger records to show the fact of the reduction. If a separate subsidiary ledger record is kept for the unit in question, that record should be removed from the ledger and stored in a file with other similar inactive records. If the reduction is only partial, the cost as shown by the subsidiary record must be modified to reflect the change, with a complete description of what brought about the change. If the reduction applies to a nondepreciable fixed asset, such as land, or a depreciable fixed asset for which depreciation is not formally recorded in the general ledger, the removal will be accomplished by crediting the ledger account recording its cost. If the fund recording the reduction receives cash or other assets for the asset being disposed of, an appropriate account must be debited. Any difference between the cost of the asset disposed of and the asset or assets received will be debited or credited to some equity account. To illustrate, if an enterprise fund donates land carried at $10,000 to a park fund, the following entry on the enterprise books would serve to record the transaction:

Retained Earnings	10,000	
Land		10,000

According to the present position of the National Committee on Governmental Accounting, the Retained Earnings account should be debited in the above entry even though the land was acquired as part of the original contribution to establish the fund.

If a trust fund sold, for cash of $9,000, land that cost $7,500 or had been appraised at that figure, the entry required would be as follows:

Cash	9,000	
Land		7,500
Trust Fund Balance		1,500

It is possible that circumstances may require the gain to be classified as income, in which case it might be described as Gain from Sale of Land.

Recording the removal of fixed assets from funds that formally record depreciation is likely to be somewhat more complicated. If the asset has been fully depreciated, disposal without remuneration in any form could be accomplished by the following entry, assuming the item to be machinery:

Allowance for Depreciation—Machinery	14,000	
Machinery		14,000

If the asset was still in service and the record of depreciation had not been brought up to date at the time of disposal, the following preliminary entry would be required:

Depreciation of Machinery	200	
Allowance for Depreciation—Machinery		200

The amount of the depreciation entry would depend upon the governing rate and the time since the last previous adjustment.

Assuming the amount of $12,500 of recorded depreciation on a $13,000 machine, and sale for $900 cash, the entry would be as follows:

Cash	900	
Allowance for Depreciation—Machinery	12,500	
Machinery		13,000
Fund Balance		400

Actually, the $400 differential would be credited to the account title prescribed for it by the manual or other procedures regulating accounting for the fund to which the transaction applies. Consummation of the transaction at a loss would be accounted for in a similar manner, except that a reduction in fund equity must be recognized.

Partial reduction of the cost of fixed assets involves no principles outside of those explained above, but it does present a problem of application. This consists of the necessity of ascertaining or estimating the cost of the part being separated, determining the accumulated depreciation on the part and possibly bringing it up to date, and, finally, identifying and measuring the net worth equity in the part. The greatest problem is deciding upon the portion of total cost to be allocated to the part removed; apportioning the allowance and the fund equity would be a matter of arithmetical proportion, based upon the ratio of the cost of the part to the cost of the whole. For example, if one fourth of the fixed asset cost is disposed of, then one fourth of the allowance for depreciation should be written off.

Governments frequently trade fixed assets on new items. In the general fixed asset accounts the total cost of the old item should be removed and the total cost (not merely the cash payment) of the new one set up. In self-supporting funds the difference between book value of the old asset and the amount allowed on it for exchange should be set up as gain or loss on the transaction.

General fixed assets

As may have been observed from the foregoing discussion, accounting for fixed assets owned by governmental funds which are required to account formally for depreciation bears a close similarity to comparable procedures in commercial accounting, the major difference being techni-

calities due to the influence of federal income taxation upon the latter. Accounting for general fixed assets, on the other hand, is an art peculiar to government. General fixed assets may be thought of as those not used exclusively in the operations of any one fund nor belonging to any one fund, in contrast with those of intragovernmental service, trust, and enterprise funds. They include courthouses and city halls, public buildings generally, the land on which they are situated, highways, streets, sidewalks, a considerable amount of equipment, and others. Formerly, general fixed assets and general fixed liabilities were sometimes merged in a group under the heading of "capital fund" or "general property fund," but this practice is not currently recommended. A substitute arrangement, described in Chapter 14, avoids any implication of interdependence between the two groups. No "surplus" or "net worth" is shown. It represents an idea rather than a practice.

General fixed assets should be recorded in a self-balancing group of accounts which has received the name, General Fixed Assets Group. The group should not be referred to as a "fund," since it does not comply with the fund concept as an amount of resources for carrying out specific objectives. Balance in the group is provided by the various asset accounts with their debit balances, offset by equity accounts with credit balances which show by their several titles the sources from which the assets were derived. A so-called "balance sheet" for general fixed assets might appear as shown in Illustration 13–1. Asset titles included in this statement are names of groups, and may be modified as desired to present the information in the form deemed most effective. An occasional governmental unit desires to account for all its fixed assets, regardless of use, in one group. Fixed assets of enterprise funds and intragovernmental service funds are reported in the same statement with the conventional *general* fixed assets. This necessitates inclusion of appropriate depreciation allowances with the fixed assets of the enterprise and intragovernmental services funds. Reporting *all* fixed assets owned by a governmental unit in a single statement is not widely practiced.

General fixed asset accounting

One noteworthy feature of general fixed asset accounting is the absence of formal entries for depreciation. Detailed subsidiary ledger accounts for depreciable fixed assets may carry memorandum entries for depreciation, but these are not recorded by formal debits and credits. Four reasons may be cited for this policy, as follows:

1. General fixed assets of a government are not used for credit security purposes. For that reason, little interest attaches to their depreciated value.
2. No attempt is made to determine the consolidated net income or net loss of a governmental unit as a whole; so nothing would be gained by the formal recording of depreciation.
3. Depreciation accounting in commercial practice assists in preventing the

impairment of capital through depreciation of the asset without provision for replacement. To accomplish this in governmental practice (except for self-supporting enterprise funds) would require building up an aggregate of cash or other readily convertible assets for replacement. A given generation of taxpayers might thus be paying for assets currently in use, through special assessments or taxes for debt service, and at the same time paying for similar assets to be used by future generations.

4. If depreciation charges cannot be covered by cash revenues, the charges could not be included in the annual budget because of the necessity of matching estimated expenditures and estimated revenue. Therefore, depreciation could not be charged as an expenditure because it would be outside the budget.

Illustration 13–1

TOWN OF CLARENDON

Statement of General Fixed Assets
September 30, 1969

Assets		
Land		$ 89,000
Buildings		1,713,000
Improvements other than buildings		1,443,000
Equipment		511,000
Construction work in progress		186,000
Total General Fixed Assets		$3,942,000
*Investment in General Fixed Assets**		
General fund		$ 738,000
Special revenue funds		539,000
Bond funds**		2,066,000
Capital projects funds:		
General fund	$ 34,000	
General obligation bonds	102,000	
Federal grants	73,000	209,000
Special assessment funds:		
Assessment against property owners	$221,000	
City's share of cost	46,000	267,000
Contributions—individuals		59,000
Unknown		64,000
Total Investment in General Fixed Assets		$3,942,000

* If sources of some fixed assets are not obtainable, this section may be divided into two subsections: "Investment in general fixed assets acquired after (a certain date)," and "Investment in general fixed assets acquired prior to (a certain date)." Details under the first subsection may be shown as above, with some such caption as "Sources unknown" under the latter. Another possibility for dealing with the latter group is to merely list them as "Unknown," as is done here.

** Prior to introduction of the capital projects fund concept, bond issues for construction or purchase of general fixed assets were accounted for in bond funds. Large amounts of general fixed assets financed by bond funds are still in service.

The foregoing statements appear to represent the current consensus as to the formal recording of depreciation on general fixed assets, but some accountants contend it can and should be done.[3]

[3] David Green, Jr., "Depreciation of General Fixed Assets in Governmental Accounts," *Municipal Finance,* Vol. XXXIV, No. 4 (May, 1962), pp. 152–68.

Accession of an item by the general fixed assets group requires a debit to the appropriate general ledger asset account and a credit to an equity account indicating the source from which provided. Thus, if office equipment were purchased for the treasurer's office from general fund resources, the general fixed assets entry would be as follows:

Equipment	450	
Investment in General Fixed Assets—General Fund		450

Although purchased for the immediate use of one department, the equipment belongs to the general government and could, if desired, be transferred to other use. On the general fund books the foregoing transaction would appear as an appropriation expenditure, which would be recorded as follows, passing over reversal of the encumbrance:

Expenditures	450	
Vouchers Payable		450

In detailed accounts of the general fund the transaction would appear as a reduction of the amount appropriated for the treasurer's office.

General fixed assets purchased by a capital projects fund would be recorded in the same manner as if acquired from the general fund, the difference in entries being that the credit will show a capital projects fund as the source. It is conceivable that two or more funds might contribute to the total cost of a general fixed asset. This situation would interpose no special problem but would merely require that the credit clearly reveal the amount of cost contributed by each source.

General fixed assets constructed by a capital projects fund will be accounted for in the general fixed assets group in the same manner as though purchased, if construction is initiated and completed in the same fiscal period. But if two or more periods are involved, additional steps are necessary. Assuming that capital expenditures of $250,000 (federal grant) were made on an unfinished building project during a given year, the information would be taken up in general fixed assets by the following entry:

Construction Work in Progress—Buildings	250,000	
Investment in General Fixed Assets—Capital Projects Fund—Federal Grant		250,000

It will be recalled from Chapter 6, on capital projects funds, that the correlative capital projects fund entry for the above would have been a closing of the Expenditures and Encumbrances accounts into Fund Balance. Following through from the foregoing entry, let it be assumed that the completion of construction in the next year entailed additional expenditures of $75,000 (provided by a federal grant), which would have been accounted for by the capital projects fund in the normal manner. The additional expenditure would be recorded in the General Fixed Assets ledger as part of the cost of a completed project; and the pre-

viously suspended cost would be converted from its temporary account to the permanent one, as illustrated in the following compound entry:

Buildings	325,000	
Construction Work in Progress—Buildings		250,000
Investment in Fixed Assets—Capital Projects Fund—Federal Grant		75,000

The contribution of the capital projects fund would now appear in the general fixed assets group as follows: Buildings, $325,000; Investment in General Fixed Assets—Capital Projects Fund—Federal Grant, $325,000.

Fixed assets acquired through a special assessment fund should be accounted for in the manner outlined for recording those provided through capital projects fund construction. Some technical difficulty might be experienced in exact apportionment of cost between property owners and the governmental unit. The amount expended is likely not to be the exact amount levied. In view of the fact that some authorities even question the propriety of capitalizing the property owners' contribution and that the whole group of accounts is more or less of a memorandum nature, it would seem that a careful approximation of the amount supplied by each party (property owners and governmental unit) would be acceptable.

Fixed assets contributed to the general group by a self-supporting fund bring a minor question. If the asset is of depreciable nature, at what figure should it be recorded in the accounts of the transferee—book value as shown by the transferor or original cost? The answer seems to be book value, because that is the fairest measure of the contributor's sacrifice. In the event appraised value is greatly below unamortized cost, perhaps that value should be used. Assuming that a building that had cost $29,000, now $12,000 depreciated, is permanently surrendered to the general government, the following entry would be made in the general fixed asset accounts:

Buildings	17,000	
Investment in General Fixed Assets—Electric Utility Fund		17,000

The utility's accounting treatment of this transaction was discussed in a previous section on reduction of costs.

Assets received from private sources may be taken up at the carrying value of the previous owner as a fair measure of value; or, if deemed advisable, they may be appraised on the basis of present value. These bases of valuation appear to be sounder than a nominal valuation of $1, because they give at least an approximation of values employed for public purposes.

Disposal of general fixed assets

Disposal of fixed assets involves no accounting problem if no cash or other extraneous assets are involved in the liquidation. The requirement is elimination of the asset and reduction of the equity account which re-

cords its source. Assuming that a building that cost $50,000, provided by a capital projects fund, is retired without revenue or expense to the governmental unit, the following entry would suffice:

Investment in General Fixed Assets—Capital Projects Fund—Federal Grant	50,000	
Buildings		50,000

The subsidiary record or account for the building should receive appropriate notations about the transaction and thereafter be transferred to an inactive file.

Although cash is disbursed or received in connection with the disposal of general fixed assets, that fact would have no bearing on the entry to be made in that group of accounts. Cash disbursements in connection with the removal of an item from the general fixed assets group should appear among the transactions of the disbursing fund and classified according to the nature of the charge. Assuming that the general fund pays $300 for the demolition of the building, an entry in the following form should be made on its books:

Expenditures	300	
Vouchers Payable (or Cash)		300

If cash arises from the disposal of a general fixed asset, some question may arise as to its disposition. Theoretically, it should be directed to the fund that provided the asset; but this may not always be possible. If the asset was provided by a capital projects fund, the contributing fund may have been liquidated before the sale occurs. Unless prescribed by law, disposition of the results of sale will be handled as directed by the trustees or other legislative body having jurisdiction over the asset and will be accounted for in the manner required by the accounting system of the recipient fund. The credit may be to Fund Balance, to Miscellaneous Revenue if the fund has such a title, or to such other account as appears best to describe the receipt.

Detailed property accounts

Governmental organizations should keep both general and subsidiary records for fixed assets owned. General records consist primarily of general ledger accounts operated for control over groups of subsidiary records. Subsidiary records consist of the detailed records which are kept for individual items of fixed assets.

One or more of a number of purposes are served by the use of adequate fixed property records. The most important of these purposes are as follows:

1. As suggested elsewhere, fixed property records, properly kept, furnish information about the investment that taxpayers and others in the past have made for the benefit of future citizens and other users of government property, in contrast with expenditures for current purposes.

2. They provide a basis for adequate insurance coverage on insurable fixed assets. Although cost is not the major determinant of insurable value, it would be given consideration.

3. Properly kept records, providing for information on care and maintenance, assist in the budgeting of such costs and perhaps in singling out items on which current expenditures are abnormally high or possibly some that require minimum outlays for upkeep and maintenance.

4. They assist in fixing accountability for the custody of individual items and in determining who is responsible for seeing that care and maintenance requirements receive the attention to which they are entitled.

5. Since capital budgets are best developed on a long-term basis, reliable information about fixed assets now owned should be of material assistance in approximating future requirements.

6. Complete fixed assets records are indispensable for self-supporting funds as a basis for computing depreciation. For utility funds, they are absolutely essential in establishing the base that should be used in fixing charges for service or in judging the reasonableness of rate schedules already in effect.

The main classifications of fixed assets have been stated previously. To reiterate another previous statement, the names of these classifications may

Illustration 13–2

TOWN OF DENTON

EQUIPMENT LEDGER*

Property Code No. E 413

Description Tractor

Manufacturer J. I. Case & Co.

Manufacturer's Serial No. 3796465 — Model 4 NB

Date of Purchase June 20, 1969 — Reference V.R., 1969, p. 34

Cost Total $ 2,476 — Fund General

Invoice Price $ Same — Freight $ None

Installation $ None — Other $ 40.00, painting

Estimated Life (Years) 8 — Estimated Salvage Value $ 500.00

Annual Depreciation $ 252.00

Location City Garage

DISPOSAL

Disposal Approved by ______ Reference ______

Reason ______ Date ______

How Disposed of (Sold, Scrapped, etc.) ______

Age at Date of Disposal ______ Amount Realized ______

Date	Reference	Additions, Betterments, Major Repairs	Amount

* If used for a utility depreciable asset, this form should be modified to provide for entering periodic depreciation thereof and for adjustments of recorded depreciation, if any need to be made.

Illustration 13–3

TOWN OF DENTON

LAND LEDGER

Property Code No. L-34

Location of Property 309 W. Third
Legal Description Huntington's Addition
Dimensions 60' x 200' Area 12,000 sq. ft.
How Acquired Donation Fund None
Date Acquired Aug. 6, 1959 Reference Journal, 1959, p. 71
Original Cost or Appraised Value $ 7,000 Use of Property Recreation
Appraised by R. R. Mills & Co.

Additional Costs

Amount	Reference	Description
$ 25	W.R., p. 91	Examination of title
190	W.R., p. 93	Clearing

Deed:

Kind Quit claim Date Aug. 6, 1959 Where Recorded Deed Record 96, p. 7
Abstract of Title (by Whom): Monroe County Abstract Co.
Date July 21, 1959 Where Filed Safe, Town Treasurer's Office
Disposal Record:
Date of Disposal
Manner of Disposal
Amount Received $
Remarks Donated by Alfred Huntington

be used as general ledger account titles; or more specific account titles may be used, with a code to designate the general classification to which the account belongs.

Subsidiary ledger accounts for fixed assets may be kept on specially designed sheets of a loose-leaf ledger or on specially designed cards. Governmental units with large quantities of fixed assets are making increased use of cards designed for automatic recording and tabulating of information. Whatever the form of the subsidiary record, it should provide for showing, among other things, a complete description of the asset, including the formal title and the serial number or other objective information for positive identification of the asset; complete data on increases and decreases of cost, including amounts, dates, and sources from which posted; and provision for memorandum entries related to depreciation, repairs, and maintenance. (See Illustrations 13–2 and 13–3.)

Classification of subsidiary accounts

An important advantage of keeping general fixed asset accounts in a flexible ledger is the ease of shifting items from one group to another. This is important because accountability and responsibility for general fixed assets may be indicated by a significant grouping of the accounts.

Thus, ledger accounts for all property in the custody of a given department may be grouped together in the ledger. Within the departmental group, cards or accounts will be organized according to the standard groups of Land, Buildings, Improvements Other than Buildings, and Machinery and Equipment (or Equipment), or other general ledger titles. If subdivisions are recognized under the three main classes, such as different subclasses of Machinery and Equipment (or Equipment), subsidiary accounts may be so grouped.

In order to assure accurate records of accountability and responsibility for property, standard forms should be utilized for recording transfers. Such forms should provide for a complete description of the property transferred; the names of the transferor and the transferee; financial data, including cost and accumulated depreciation (for assets transferred from self-supporting funds); and blanks for the necessary authentication of the transfer. The transfer document should be prepared in at least three copies: one for the accounting office, one for the transferor department, and one for the transferee. The accounting department copy provides the basis for taking a subsidiary account from the section for one department and putting it in the section for the other department, thus effecting a change in the record of responsibility. The transferor's copy is his receipt to show he should no longer be charged. The transferee's copy serves as his inventory record. If desired, the transfer form may be used to record abandonment, retirement, or other permanent reduction in fixed assets; or if preferred, a special form may be devised for this purpose.

Inventories of fixed assets

At least annually, all fixed property should be inventoried. This checks against losses not previously revealed and brings to light errors in records of accountability, that is, having one department charged with an item that is actually in the custody of another. Furthermore, a systematic physical inventory of fixed assets gives an opportunity for surveying their physical condition, with respect to their need for repairs, maintenance, or replacement. Property inventories need not be taken simultaneously in all departments but may be spread over a period of time, with due consideration for departmental or other transfers or changes during the period. As suggested elsewhere, government fixed assets, especially those that are movable, should be marked by a numerical or other form of code so that each item may be positively identified. The marking may be accomplished by the use of labels or tags, by the use of indelible ink, by stamping, or by other methods giving permanency. To save time in locating markings, rules should be established and observed concerning the exact points where they will be affixed on different types of equipment. Assets that cannot be located after diligent search should be written off in some prescribed manner, which should include approval by responsible persons.

Property inventories may follow the general plan pursued in checking

mercantile and manufacturing inventories, with considerably less detail than in the latter types. Provisions should be made for accurate description of the items listed and for showing the departments or units charged for each group of assets. (See Illustration 13–4.)

Illustration 13–4

TOWN OF DENTON

FIXED ASSET INVENTORY

Taken by M. Kerr

Sheet No. 1

No. of Sheets 1

Class of Property Furniture

Department Treasurer's Office

Date December 29, 1969

Description	Manufacturer's No.	Serial No.	No. of Units	Unit Cost	Total
Tables, wooden	None	T 7–11	5	$ 46	$230
Desk, wooden	"	T 12	1	195	195
Chairs, wooden, office	"	T 1–6	6	15	90
Chairs, metal, swivel	"	T 13	1	41	41
Note: One wooden chair charged to this office could not be located.					

Statements of fixed assets

Statements of fixed assets serve primarily to answer three questions:

1. What is the cost of the fixed assets in use; and, for self-supporting funds, what is the amount of depreciation and their present book value?
2. Who is using them, and for what are they being used?
3. What changes have occurred during the year?

For IGS and such trust funds as own fixed assets the answer to the second question is self-evident; and the answer to the first question is pretty well furnished by the balances of the general ledger accounts, because funds of these types do not ordinarily possess large quantities of fixed assets. For the third question, comparative balance sheets for intragovernmental service and trust funds would provide about all the answer necessary in their cases. Enterprise funds usually own substantial amounts of fixed assets, which are used for a number of different purposes in performing their service; therefore, a detailed statement of enterprise fixed assets may be desirable.

For general fixed assets the basic exhibit is the statement of general fixed assets or, as it is sometimes captioned, the general fixed assets balance sheet. Its special contribution is to show the total cost of assets of the

various groups in use by the general government and the sources from which they were derived. This statement is shown in Illustration 13–1 and will not be repeated at this point.

The purposes for which, and by whom, fixed assets were being used at a given date, ordinarily the end of a fiscal period, are set forth in a statement of general fixed assets classified by functions and activities (see Illustration 13–5). Activities may be correlated with departments to show

Illustration 13–5

VILLAGE OF LEBANON

Statement of General Fixed Assets* by Function and Activity
June 30, 1969

Functions and Activities	*Combined*	*Land*	*Improvements Other than Buildings*	*Equipment*
General government	$ 40,000	...	...	$ 40,000
Public safety:				
Police protection	$ 90,000	$ 5,000	$ 40,000	$ 45,000
Fire fighting	355,000	15,000	80,000	260,000
Protective inspection	10,000	...	...	10,000
Other inspection	2,000	...	...	2,000
Total Public Safety	$ 457,000	$ 20,000	$ 120,000	$ 317,000
Highways	$ 505,000	$ 15,000	$ 70,000	$ 420,000
Other functions	$2,000,000	$160,000	$1,100,000	$ 740,000
Total Allocated to Functions	$3,002,000	$195,000	$1,290,000	$1,517,000
Construction work in progress	200,000			
Total General Fixed Assets	$3,202,000			

* To conserve space, "Buildings" has been intentionally omitted.

by whom the property is being used. Illustration 13–5 follows the form approved by the National Committee on Governmental Accounting. Examination of this form will reveal that a high degree of departmentalization would be necessary before such a statement could be prepared on an accurate basis. However, modifications may be made to fit individual situations. For economy of space, only one function, public safety, has been detailed by activity. Group totals and the grand total in Illustration 13–5 should correlate with their respective amounts in the statement of general fixed assets for the same date.

Another statement which should be of interest to taxpayers and citizens generally is one that shows changes in general fixed assets during a period of time (see Illustration 13–6). The value of this statement is that it not only accounts systematically for changes between one date and another, but it also shows the extent to which responsible officials are investing for future requirements, in contrast to spending primarily for current requirements. In addition, the statement of changes serves as a reconcilement or transition between statements of general fixed assets for the ends

Illustration 13–6

TOWN OF SPRINGVILLE

Statement of Changes in General Fixed Assets* by Source and Cause
Year Ended September 30, 1969

Description	*Combined*	*Buildings*	*Improvements Other than Buildings*	*Equipment*	*Construction Work in Progress*
Beginning totals	$2,510,000	$285,000	$ 703,000	$1,405,000	$117,000
Additions:					
Expenditures from capital projects funds:					
General obligation bonds:					
Completed projects	$ 417,000	$ 21,000	$ 396,000		
Uncompleted projects	72,000				$ 72,000
Expenditures from special assessment funds:					
Completed projects	218,000		218,000		
Uncompleted projects	51,000				51,000
Expenditures from general fund	65,000			$ 65,000	
Expenditures from special revenue funds	109,000	7,000	39,000	63,000	
Gifts	98,000	98,000			
Total additions	$1,030,000	$126,000	$ 653,000	$ 128,000	$123,000
Beginning totals and additions	$3,540,000	$411,000	$1,356,000	$1,533,000	$240,000
Deductions:					
Sales or trades	$ 11,000			$ 11,000	
Loss by fire and other casualties	212,000	$180,000		32,000	
Assets worn out	7,000		$ 5,000	2,000	
Uncompleted work of prior period completed:					
Capital projects fund	57,000				$ 57,000
Special assessment funds	41,000				41,000
Total deductions	$ 328,000	$180,000	$ 5,000	$ 45,000	$ 98,000
Ending Totals	$3,212,000	$231,000	$1,351,000	$1,488,000	$142,000

* To conserve space, "Land" has been omitted from the above illustration.

of consecutive years. From Illustration 13–6, which follows suggestions of the National Committee on Governmental Accounting, it will be noted that the methods of financing additional investments in fixed assets are set forth in detail, which is equally as important as the amounts of the changes. If desired, the statement of changes in general fixed assets might be expanded and amplified to analyze changes by functions and activities; but on account of its great amount of detail and its probable restricted use, such an expansion of the statement will not be illustrated here. Other kinds of statements relating to fixed assets may be found in published governmental reports.

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QUESTIONS

1. A governmental unit of considerable size has no organized record of fixed property but proposes to establish one. What would you say would be the first major step in effectuating the proposal?
2. It is said in this chapter that the cost of fixed assets is a fact of some importance but not a preponderant one in determining the adequacy of insurance coverage. What is the full meaning of the foregoing statement?
3. One of the common objections to recording depreciation of governmental fixed assets is that the depreciation charge could not be fitted into the budget, since no cash or other asset is disbursed. Can you think of any way of overcoming or disproving that objection?
4. If one article of equipment is traded on another of the same kind and a trade-in allowance is received for the replaced article, which of the two methods listed below should be employed for changing the asset account?
   a) Debit or credit the asset account, as required, for difference in cost of the two articles.
   b) Remove the total cost of the replaced article, and add the total cost of the new one.

   Since both methods would give the same final balance in the asset account, give a reason for your choice.
5. If cash is received upon disposal of a fixed asset, what difficulty may attend the effort to reimburse the fund or other source which supplied the fixed asset? Explain.
6. A governmental unit showed for its fixed assets a relatively larger investment from current revenues than another which showed more from bond issues. Is the difference important? Why?
7. In taking an annual physical inventory of fixed property, the inventory taker was unable to locate a typewriter charged to the custody of a certain department head. He was informed that the machine was out of office for repair. Should the inventory taker report the unit as verified, or should some other action be taken?
8. Below are stated several transactions related to fixed property of a governmental unit. Which should be debited to fixed asset accounts?

   a) Contract price of land.
   b) Contract price of new building.
   c) Cost of demolishing and removing an old building from the site of the new.
   d) Cost of land title abstract.
   e) Six months' interest on money borrowed for purchase of a new building.

f) Mowing grass and weeds, and other care and maintenance activities for land.
g) Freight on equipment purchased.
h) Cost of assembling and testing a piece of complicated machinery.
i) Cost of securing an easement for right of way over an adjoining property.
j) Cost of a set of building plans which were not the ones followed in construction of the building.
k) Cost of renovating and conditioning an old building purchased, before putting it into service.
l) An expenditure of $7.50 for land drainage.
m) A utility's share of the special assessment for a new street adjoining the utility property.
n) A share of the utility superintendent's salary, based upon actual time he spent in supervising construction of a new plant.
o) Unpaid taxes assumed by a government unit in acquisition of property from private sources.
p) Cost of periodic redecoration of office quarters.

9. To avoid unusually heavy expenditures in some fiscal periods, capital budgets ordinarily cover a period of several years, possibly 5 or 10. What is the significance of fixed asset records in connection with such a budget?
10. If a governmental unit acquires title to real estate by donation and records the property on the basis of present appraised value, the legal expenses of establishing title may not be capitalized, but the costs of remodeling or rehabilitation may be added. Explain the difference.
11. If a governmental unit obtains an abstract for a parcel of land acquired, does that indicate that it has acquired a good title to the land? Explain your answers.

PROBLEMS

1. Below are described a number of transactions, each of which had an effect on a general fixed assets group of accounts. You are required to make an entry or entries for each transaction as it should have been recorded in the general fixed assets group of accounts. Explanations are not required.

(1) During the year a capital projects fund completed a building project which had been initiated in the preceding year. The total cost of the project was $4,690,000, of which $2,580,000 had been spent or encumbered in the preceding year. Current year expenditures on the project, not encumbered in the prior year, were reported to have consisted of $1,500,000 from a federal grant, with the balance coming from proceeds of a general obligation bond issue.
(2) All properties of the city library are accounted for as general fixed assets, and during the year the library purchased books at a total net cost of $25,000. The purchases were financed by money provided by a special revenue fund.
(3) A manually operated typewriter was traded on an electrically operated machine with a cash payment of $315. Price of the new machine to governmental bodies was $350. The manual machine had been purchased from general fund revenue for $145. Cash for the new machine was furnished by a special revenue fund.
(4) A piece of heavy equipment was purchased by the street fund. Catalog price of the equipment was $6,000 with trade discounts of 10 and 5 percent. Terms of payment quoted by the manufacturer were 2/10, *n*/30. Payment for the equipment was made within the cash discount period.
(5) A tract of land and a building located upon it were on the required right-of-way of an interstate highway and were sold to the state for $10,600. Cost of the building when erected was $9,800 and the estimated cost of the land was $1,300, both purchased from general fund revenue.
(6) A subdivision annexed by the city contained privately financed streets and sidewalks and a system of sewers. The best available information showed a cost of $120,000

for the sewer systems and $155,000 for the streets and sidewalks, of which $12,500 was estimated cost of the land. Both types of improvements were provided by the developers.

(7) A contract was let for remodeling of the interior of the city hall at a price of $21,650. $2,770 of this amount was classified as maintenance rather than improvement. In the remodeling process, walls, partitions, floors, etc., which were estimated to have cost $6,580 were removed and replaced. Cost of the total operation was provided by the general fund. The building had been built from proceeds of a bond fund.

You are required to make journal entries, without explanation, for the foregoing transactions. For those transactions which represented both an increase and decrease of general fixed assets and investment, it is recommended that for sake of uniformity the two kinds of changes be recorded in separate entries.

2. Below are stated a number of transactions related to general fixed assets, and to other accounts as well, of an imaginary governmental unit. Record each transaction in all the groups and funds affected, unless otherwise directed. Indicate clearly the fund or group to which each entry pertains. Omit explanations. Also omit general long-term debt entry for (3).

(1) During the year expenditures of a capital projects fund totaled $2,360,000 on a building project not completed at the end of the year, and that amount was closed to Fund Balance at the end of the year. Of the expenditures, $1,004,000 was financed from proceeds of a general bond issue in the preceding year, and the balance came from a federal grant received in the current year. Make end of year entries, only.

(2) Valuable books and documents appraised at $14,300 were received by the public library, from an individual. The library does not maintain its own accounting record of books, pictures, equipment, etc.

(3) An issue of $300,000 general obligation bonds was authorized for a capital projects fund during the year and was sold at par. Omit the general long-term debt and interest group entries. A building was purchased from the proceeds during the year at a total cost of $298,000 and the $2,000 balance in the capital projects fund was transferred to the debt service fund to be applied to retirement of the bonds. In the capital projects fund omit the encumbrance entries and the closing entry.

(4) A building which had been acquired at a cost of $7,500 and equipment of which the total cost was $12,000 were disposed of during the year. Both had been purchased by special revenue funds. $50 cash was paid by the general fund for demolition and removal of the building, and it received $350 from disposal of the equipment.

(5) An addition to the city hall, to be used partly by the water fund, was erected at a total cost of $12,700, financed equally by the water fund* and the general fund.

(6) A special assessment fund sewer project was completed at a total cost of $730,000, of which $290,000 had been fully recorded in the preceding year. Of the amount spent in the current year $300,000 was from a federal grant, $120,000 was supplied by property owners, and the balance was the city's share of the cost. (Record closing out of the special assessment fund expenditures for the year and make necessary entries in the general fixed assets group. Omit other special assessment fund entries.)

(7) A special assessment fund which had taken title to a parcel of land for nonpayment of assessments transferred the land to the city government. Charges against the property when it had been taken by the city consisted of $120 delinquent assessments for construction, $310 delinquent assessments for bond payments, $10 for construction cash used in connection with the foreclosure and sale, and $20 interest receivable at the time the lien was foreclosed. At the date of transfer the land was appraised at $115.

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* Miscellaneous Revenue Deductions is the title prescribed by leading utility regulatory commissions to record donations made by a utility. NCGA recommends Retained Earnings.

(8) The municipal electric fund donated to the city general government about one third of a parcel of land for which the utility had paid $30,000. At the date of acquisition by condemnation, the land was estimated to have a present value of $21,000. Since the land was nondepreciable, none of the premium paid for it had been amortized. (See footnote to transaction 5.)

3. Early in 1969, the town of Arcadia, founded in 1901, embarked upon a program of establishing a coordinated and continuing record of its general fixed assets. with major responsibilities assigned to its accounting and legal departments. Specifically, the two departments were directed to produce an inventory of the town's general fixed assets at December 31, 1969, with a showing, insofar as possible, of the total amounts supplied by the various funds and other sources from which the fixed assets were obtained. Fortunately, a considerable portion of the general fixed assets had been acquired in rather recent years, after installation of a fairly complete accounting system. All available records for the prior period were scanned for expenditures of $50 or more, and these were listed and classified as to their capital or expense nature.

By December 31, 1969, the following summary of information about general fixed assets had been developed for 1901 to 1969, inclusive:

Objects of Expenditure or Gift	*Amount*	*Sources of Acquisition*	*Amount*
Land	$ 56,000	General fund	$2,770,000
Buildings	2,837,000	Special revenue funds	399,000
Improvements other than buildings	3,914,000	Bond funds	3,200,000
		Special assessment funds	130,000
Equipment	1,623,000	Federal grants	1,200,000
Construction in progress	106,000	State grants	802,000
Not definitely determinable	61,000	Contributions—individuals	73,000
Total	$8,597,000	Total	$8,574,000

Because of retirements, abandonments, destruction, and other forms of loss, properties supposed to have had the following total costs could not be located for inventory: buildings, $416,000; improvements other than buildings, $623,000; equipment, $311,000. However, assets of which no record was discovered were in possession of the city at the following appraised values as of December 31, 1969: land, $7,000; buildings, $22,000; equipment, $81,000.

Of the sources of acquisition, mostly expenditures listed above, the following amounts could not be associated with any general fixed asset included in the December 31, 1969, inventory: general fund, $821,000; special revenue funds, $76,000; bond funds, $513,000; state grants, $34,000; contributions—individuals, $11,000. The special assessment fund investment could not be divided between property owners and town.

From the foregoing collection of information you are required to prepare a statement (balance sheet) of general fixed assets for the town of Arcadia at December 31, 1969. Bear in mind that asset titles in your statement are names of controlling accounts which would be supported by subsidiary ledgers of costs or appraised values which could be inventoried at the statement date. The statement should include costs or appraised value of inventoried assets and amounts of investment related to those assets.

4. The X State Highway Department maintains a record of general fixed assets in a "Capital Accounts" section of its trunk highway fund which also serves in the capacity of a general fund. The classification of kinds of general fixed assets in the department's statement reflects the peculiar nature of a state highway department's properties, and therefore does not follow the standard grouping recommended by the National Committee on Governmental Accounting. For June 30, 1968, the following information (rounded to tens of dollars) was given:

Highways:	
Interstate	$ 363,120,170
Primary	583,208,930
Secondary	337,463,180
Urban	107,837,160
Total highways	$1,391,629,440
Land:	
Building sites	$ 871,260
Advance acquisition for right-of-way	366,570
Other	37,040
Total land	$ 1,274,870
Buildings	$ 9,991,950
Equipment	103,810*
Aggregate deposits	481,620
Construction work in progress	40,839,080
Total General Fixed Assets	$1,444,320,770

* Does not include maintenance and construction equipment, accounted for in an intragovernmental service fund.

Based upon a combination of estimates and verified outlays, the sources of the foregoing assets were as follows: Federal government, highway trust fund, $406,927,550; other, $78,451,630. State government, motor fuel tax fund, $763,102,260; general fund, $27,999,510. Local governments, special revenue funds, $41,832,280; general funds, $5,813,430; bond funds, $119,-810,250. Contributions—individuals and corporations, $383,860. (Amounts shown for local governments, individuals, and corporations largely consist of grants of right-of-way for original roads and expenditures for construction on roads subsequently taken into state system.)

During the fiscal year ended June 30, 1969, the following changes occurred:

(1) Expenditures on highway construction for the year totaled $102,907,840, which came from the following sources in the amounts indicated:

Highway trust fund	$72,228,930
State motor vehicle fuel tax fund	30,031,790
State general fund	237,220
Local governments—special revenue funds	388,090
Contributions—individuals and corporations	21,810

(2) Additional building sites were acquired during the year at a cost of $42,140 supplied by the state general fund, and other such land which had been furnished by the same source was disposed of in the amount (cost) of $12,980.

(3) Additional land was acquired for right-of-way purposes at a total cost of $932,010 supplied by the motor vehicle fuel tax fund. Construction was begun on right-of-way land which had been acquired at a cost of $901,760, and land which had been acquired for right-of-way purposes at a cost of $12,160 was transferred to the "Other" classification.

(4) Miscellaneous land which had been purchased from motor vehicle fuel taxes at a cost of $7,070 was sold for $8,340.

(5) Building acquisitions during fiscal 1969 totaled $139,880, while buildings which had cost $21,090 were disposed of. All buildings of the highway department are acquired from revenue supplied by the state general fund.

(6) Gravel and sand deposits were acquired at a cost of $97,440 from motor vehicle fuel taxes. Aggregates estimated to have cost $90,010 were used during the year, of which amount $67,340 was for maintenance. All aggregates were purchased from motor vehicle fuel revenue.

(7) Equipment which had cost $13,090 was disposed of during fiscal 1969, and new equipment was acquired at a cost of $18,460. All equipment acquisitions are from state general fund revenue.

(8) Cost of construction completed during fiscal 1969 totaled $99,407,130, distributed as follows:

Interstate	$44,301,880
Primary	28,588,730
Secondary	17,339,470
Urban	9,177,050

(9) Primary highways with an estimated cost of $4,414,330 were reclassified as urban during the year; $1,317,040, reclassified as secondary; and $7,655,980 of secondary were changed to primary.

(10) County highway mileage to which engineers assigned an estimated cost of $563,120 was taken into the secondary system. The estimated cost was arbitrarily split evenly between special revenue and bond funds.

You are required to prepare a six-column worksheet with two columns for Balances, 6/30/68, two for 1969 Transactions, and two for Balances, 6/30/69. for "General fund," under State government, provide four lines. For each of the following provide three lines: under Highways, "Secondary"; "Construction work in progress"; under State government, "Motor vehicle fuel tax." For each of the following items provide two lines: under Highways, "Primary" and "Urban"; under Land, "Advance acquisition for right-of-way."

5. A statement of changes in general fixed assets of the Town of Clarksville for 1968 showed the following departmental balances for December 31:

Clerk–treasurer	$ 4,800
Fire department	463,170
Health department	12,050
Inspector of weights and measures	11,320
Mayor's office	16,090
Parks department	297,660
Police department	155,140
Public buildings (general government)	2,642,930
Street department	388,720
Town attorney	10,760

APPORTIONMENT OF IMPROVEMENTS OTHER THAN BUILDINGS TO SOURCES

	Harbor M. and I.	*Water Utility*	*General Fund*	*Bond Funds**	*Special Assessment*	*Total*
Cost	$963,700	$10,447,100	$ 801,700	$42,440,500	$ 7,110,300	$61,763,300
Depreciation	418,200	3,066,500	171,300	7,017,800	1,705,800	12,379,600
	$545,500	$ 7,380,600	$ 630,400	$35,422,700	$ 5,404,500	$49,383,700

APPORTIONMENT OF EQUIPMENT TO SOURCES

	Revolving and W/C	*Harbor M. and I.*	*Water Utility*	*General Fund*	*Special Revenue Funds*	*Total*
Cost	$181,300	$ 2,653,900	$3,671,400	$ 2,099,000	$12,774,500	$21,380,100
Depreciation	75,700	599,200	1,370,900	872,700	2,083,200	5,001,700
	$105,600	$ 2,054,700	$2,300,500	$ 1,226,300	$10,691,300	$16,378,400

APPORTIONMENT OF CONSTRUCTION IN PROGRESS—BUILDINGS TO SOURCES

	Water Utility	*Capital Project*	*Total*
Cost to Date	$834,900	$ 2,152,300	$2,987,200

* Amounts expended before advent of capital projects funds.

You are required to do the following things:

a) From the original statement of June 30, 1969 and the supplementary information given above, prepare a statement of *general* fixed assets by eliminating the items which belong to revolving, working capital, and enterprise funds: they are not general. This can be done by establishing T accounts for the information shown in the June 30 statement, and from those accounts eliminating amounts relating to the special funds. Thus, for revolving and working capital funds, $27,090 will be credited to Land, $261,300 to Buildings, and $181,300 to Equipment; with debits of $118,600 to Allowance for Depreciation—Buildings, $75,700 to Allowance for Depreciation—Equipment, and $275,390 to Investment in Fixed Assets—Revolving and Working Capital Funds. When all special fund asset, depreciation, and investment amounts have been eliminated, prepare a statement of general fixed assets showing the book value of depreciated assets, the cost of land and construction in progress, and the related investment in fixed asset accounts.

b) After amounts pertaining to special funds have been removed from all affected T accounts, make entries in the T accounts necessary to adjust the accounts so a statement of general fixed assets can be prepared to show original cost or appraised value of general fixed assets and the total amount of the cost or appraised value contributed by each source. For example, for general fund accounts, $1,639,400 should be debited to Allowance for Depreciation—Buildings, $171,300 to Allowance for Depreciation—Improvements Other than Buildings, $872,700 to Allowance for Depreciation—Equipment; and a credit to Investment in General Fixed Assets—General Fund for the total depreciation reversed, $2,683,400. When all accumulated depreciation has been reversed, prepare a statement of general fixed assets showing original costs or appraised values and total amount provided by each source.

7. Following the close of the town of Bentonville's fiscal year on April 30, 1969, a member of the accounting staff was directed to assemble the necessary information and prepare a statement of changes in general fixed assets for the fiscal year ended on that date. From the town's annual financial report for fiscal 1968, he ascertained that the following amounts of general fixed assets were owned at April 30, 1968:

Land	$ 136,970
Buildings	1,761,520
Improvements other than buildings	2,095,740
Equipment	196,390
Construction in progress	266,110

A summary of changes during fiscal year 1969 contained the following information:

(1) A building project underway at the end of fiscal 1969 was being financed by a general obligation bond issue of $100,000 and a federal grant of $65,000, both accounted for through a capital projects fund. Of the federal authorization, $20,000 for planning and engineering had been received and spent and $42,000 of bond proceeds had been expended. Of the $42,000, purchase of land took $15,000.

(2) Records of bond funds established before the introduction of capital projects funds reported buildings completed during the year at a total cost of $209,720 and $51,880 spent on projects not completed at April 30, 1969.

(3) Special assessment funds added improvements other than buildings costing $137,100 during the year and reported total expenditures of $17,400 on a project not completed during the year.

(4) The general fund spent $31,010 for acquisition of equipment and $9,850 for a parcel of land.

(5) The street fund purchased equipment on which the cash outlay was $42,900, with allowances totaling $7,690 for equipment traded in. The equipment traded in had been purchased by the street fund at a total cost of $29,880.

(6) Annexation added a portion of a sewer system and street improvements of which the estimated original cost was $198,400 and land to which an estimated cost of $3,940 was assigned.

(7) Land having an appraised value of $75,000 was donated to the city, and additional land with an appraised value of $1,500 was received from the general fund, which had acquired it through tax foreclosure proceedings.

(8) Of construction in progress at April 30, 1968, $121,370 was reported as completed by a bond fund during fiscal 1969, and $81,660 by special assessment funds.

(9) Land acquired at an estimated cost of $1,200, on which a $7,000 building was located, was sold to the state highway department for a right-of-way at a price of $11,600.

(10) An insurance settlement of $22,900 was received on a building which had cost $27,600 and a settlement of $17,600 was obtained on equipment of which the original cost was $21,360.

(11) Construction activities during fiscal 1969 required demolition of a building which had cost $31,460 and a bridge of which the estimated cost was $11,770. Equipment which had cost $1,930 could not be located and was presumed to have been stolen.

You are required to prepare a statement of changes in general fixed assets during the fiscal year ended April 30, 1969. Show the sources of assets acquired and the causes of reductions. To conserve space, a "Total" column may be dispensed with. In the column headings, "Improvements Other than Buildings" may be shortened to "Improvements."

8. At September 30, 1968, the fixed property schedule of the town of Fortville was as follows:

General government:	
Land	$110,320
Buildings	507,100
Improvements other than buildings	163,490
Equipment	718,570
Fire protection:	
Land	21,430
Buildings	106,210
Equipment	301,850
Police protection:	
Equipment	122,480
Recreation:	
Land	618,770
Buildings	31,060
Improvements other than buildings	81,540
Equipment	59,000
Libraries:	
Land	76,390
Buildings	394,180
Improvements other than buildings	3,020
Equipment	294,670
Public service enterprises:	
Land	115,930
Buildings	92,410
Improvements other than buildings	301,250
Machinery and equipment	14,980

Additional purchases during the year (all machinery or equipment) were as follows:

General government	$ 9,020
Fire department	20,730
Police department	11,650
Recreation department	16,760
Libraries	1,940
Public service enterprises	9,010

A piece of equipment appraised at $5,710 was received from a federal agency for general governmental use.

Reductions of machinery and equipment by sale during the year included $2,080 by the general government, $390 by the fire department, and $210 by a public service enterprise. Reductions by trade-in consisted of $470 by the police department and $680 by public service enterprises.

Buildings sold during *1969* were $4,120 by the recreation fund and $12,860 by public service enterprises.

Reductions from abandonment on account of obsolescence (all machinery and equipment) were $18,640 by the general government, $920 by the fire department, $430 by the police department, $270 by the recreation department, $120 by the library, and $1,310 by the public service enterprises. Improvements other than buildings abandoned consisted of $2,780 by the general government and $1,590 by the public service enterprises.

Prepare a seven-column statement for the year ended September 30, 1969, showing the beginning balance of each class of fixed assets, the five different causes of change (purchases, received from other governmental units, sales, abandonment, trade-ins), and the amounts thereof, and the ending balance. Show totals for each function, considering fire protection and police protection as separate functions.

CONTINUOUS PROBLEM

13-L. The Controller of the city of Bingham assigned you, and other top personnel on his staff, to audit the General Fixed Assets group of accounts—a task which had not been done in many years. The bookkeeper had been a marketing major in the university, but had never succeeded in getting his grade average high enough to allow him to graduate. He was able to show you the records he had been keeping, but was not able to give a very clear explanation as to why he kept them the way he did. The auditors found the following General Fixed Assets control account balances as of the audit cut-off date. (No source accounts had been kept.)

Land	$ 150,000	
Buildings	1,300,000	
Improvements other than buildings	5,520,000	
Equipment and miscellaneous	1,310,000	
Fund Balance		$8,280,000

You are required to:

a) Open a general journal for the General Fixed Assets group of accounts and make the entries necessary to state the accounts in accord with recommendations of the National Committee on Governmental Accounting. Additional information disclosed by your audit is presented below.

(1) Analysis of the Land account disclosed that the balance was comprised of: (*a*) an amount of $25,000 entered in 1938 when the General Fixed Asset group was established; this amount was the estimated value of the City Hall site, the fire station sites, and city park land. The unimproved park land had been acquired as a gift from a citizen and was estimated in 1938 to be worth $2,000; the building sites had been acquired from the proceeds of general bond issues. (*b*) An amount of $40,000 entered in 1948 as the cost of two houses and lots. The houses were torn down and an addition to City Hall erected on one lot; the remainder was used as a parking lot for city-owned cars and for the private cars of city employees. This amount was financed under a grant from the federal government. (*c*) An amount of $60,000, dated 1954, which was financed by general obligation bonds issued for the purchase of land used as a public parking lot. The former property owners received $50,000; the mayor, who was a real estate dealer, $5,000 commission for arranging the transaction; and the mayor's brother, an attorney, $5,000 for handling the legal details. (*d*) An amount of $25,000 entered in 1963 as the cost of land purchased by the Water Utility from current operating funds; the land is being held by the Water Utility as the site of a projected new pumping station.

(2) Analysis of the Buildings account disclosed that the balance was comprised of: (*a*) an amount of $650,000 entered in 1938 as the estimated value of City Hall and the fire stations, constructed from the proceeds of general bond issues. (*b*) Charges of $4,000 for demolishing the houses purchased in 1948, and grading the land to the level of City Hall; $300,000 for the addition to City Hall; and $26,000 for paving the parking lot—all of which were financed from a grant by the federal government. (*c*) $100,000 for a golf club house in the park, constructed from part of the proceeds of a general bond issue. (*d*) $100,000 for a 240-acre estate to be used as a park. The mansion was worth $100,000 and the unimproved land $240,000, according to the real estate agent–mayor, and the park director estimated that the gardens, artificial lakes, and other improvements would cost $500,000 to

duplicate. The entire purchase price was charged to Buildings; the amount had been paid over three years out of general fund appropriations for public works. Heirs of the individual who had sold the property to the city sued to set aside the sale, claiming the man must have been incompetent. It cost the city $120,000 to settle the claim out of court. This amount was paid from a general fund appropriation and charged to Buildings.

(3) The following items had been entered in the Improvements Other than Buildings account: (*a*) estimated cost of streets, curbs, and sidewalks as of July 1, 1938, $1,750,000. $750,000 had been financed from annual general fund appropriations during the years; the balance had been financed from various special assessment funds. (*b*) $200,000, the cost of constructing a municipal golf course on city park land, financed from a general obligation bond issue. (*c*) An aggregate of $3,570,000 spent for street paving and widening, curbs, sidewalks, bridges, and culverts. $1,785,000 of this was from the general fund appropriations, and the remainder from special assessment funds.

(4) "Equipment and Miscellaneous" supporting data was in such an incomplete and obviously inaccurate state that the auditors secured permission to have an appraisal made. The cost of the appraisal was charged to a supplemental appropriation made under the General Government classification of the general fund. The appraisal cost $30,000; it was a thorough job and showed location, and condition, as well as appraised value of items classifiable as "Equipment and Miscellaneous." The proper balance of the account was found to be $2,416,000. The auditors could identify the sources of financing for only a portion of the equipment; therefore, it was decided to assume the sources to have contributed the following percentages of appraised value: general fund, 65 percent; special revenue funds, 15 percent; capital projects funds, 5 percent; special assessment funds, 5 percent; and grants from the federal government, 10 percent.

b) None of the information presented in Problems 1-L through 12-L has been recorded by the General Fixed Assets bookkeeper. Record the applicable information in the General Fixed Assets general journal.

c) Open a general ledger for the General Fixed Assets group of accounts and post your journal entries.

d) Prepare a balance sheet for the General Fixed Assets group.

Chapter 14

Liabilities

The study of liabilities in governmental accounting is thought to be sufficiently important to merit special attention for three reasons, as follows:

1. Laws and ordinances frequently include specific provisions which control the incurring of certain kinds of liabilities and affect the procedures to be followed in accounting for them. It is essential that accountants and auditors be cognizant of these restrictions and comply with them in full.
2. Judicious management of governmental debt assists in keeping interest charges at a minimum by reducing the need for borrowing and by attracting low interest rates when borrowing cannot be avoided. Adequate accounting for liabilities is vital to efficient debt management.
3. Excessive amounts of governmental debt may impose severe burdens upon taxpayers in times of financial stringency, in the form of fixed charges for principal and interest payments which must be financed through tax levies. Furthermore, at any given time, existing debt in large amounts may prevent the use of credit for acquiring use of facilities considered to be of great current importance, or compel the use of a less desirable method of acquisition—lease-purchase, for illustration.

In this chapter, it is proposed to bring together and summarize much that has already been said about liabilities of governmental units, with particular attention to, and elaboration upon, certain of the more important forms and aspects of debt as they affect the governmental accountant or auditor.

SHORT-TERM LIABILITIES

Cash overdrafts

Although not officially recognized as an approved form of liability, cash overdrafts are far from rare in governmental accounting. In many instances, they may be explained by the fact that cash of two or more governmental funds is kept in the same bank account; and although the cash of one fund may be exhausted, the other or others have sufficient credit to prevent an actual overdrawing of the bank account. In other

cases an overdraft may exist according to fund records without appearing on the records of the bank, due to the lapse of time between the issuance of a check and its presentation to the bank. Finally, fund cash accounts may be overdrawn, even according to bank records; but this situation is uncommon because of the strenuous resistance of banks to actual overdrafts, which are virtually unapproved loans.

Whatever the reason for their existence, cash overdrafts are current liabilities. They should not be included as a negative amount among current assets, primarily because to do so reduces the total shown for that group below the actual sum of the items. A cash overdraft does not in itself reduce assets of the unit but instead represents a claim against them. If the cash overdraft is in the form of a bank overdraft, although only per the books, it may be described as a "bank overdraft" in the current liability section of the balance sheet. If the cash overdraft of the fund is covered by cash of other funds, it may be described as a "cash overdraft" or as "due to other funds" in the current liability section. Promiscuous interfund borrowing is never sound financial practice, and use of other funds' money should not be condoned without proof of formal approval by legislative bodies of the funds involved.

Accrued expenses

Many governmental funds take no formal notice of accrued expenses. In this group particularly are some general and special revenue funds of small size, and other funds which have little or no concern with exact expenses for a period of time but rather concentrate upon disbursements. If accurate measurement of fund gain or loss is important to proper administration of the fund, accrual of expenses is desirable unless unpaid expenses are small and of rather uniform amount from period to period. Among the funds customarily recognizing accrued expenses are many, but not all, intragovernmental service funds, enterprise funds, some trust funds, and those debt service sinking funds which bear their own operating expenses in sizable amounts. Although capital projects and special assessment funds employ encumbrance accounting procedures to keep expenditures within the amounts authorized, those that operate by their own working forces obtain more precise financial statements by also accruing expenses at the ends of fiscal periods.

If accrued expenses are to be recorded, they should include unpaid salaries and wages accumulated to the date of closing, unpaid interest expense, amounts due to higher authorities for withholdings, estimated unpaid utility bills not already recorded as liabilities, and the cost of other contractual services received but not yet recorded. In some states, local government units are required to pay certain state taxes on semicommercial activities. Amounts of such taxes unpaid at the ends of fiscal periods, it is clear, should be included as accrued expenses. It will be observed that the kinds of expenses noted above are typically payable at short intervals, which signifies clearly that "accrued expenses" in the balance sheet should

appear in the current liability section if liabilities are classified as to the time of maturity. As elements in financial condition, they are important chiefly in that they represent claims for early settlement; they have little bearing on the long-run financial condition of the funds to which they pertain.

Accounts payable or vouchers payable

Amounts due for current purchases of services, materials and supplies, and fixed assets, evidenced by bills or invoices, are sometimes called "accounts payable" and sometimes "vouchers payable." Fundamentally, both are debts based upon unwritten promises to pay for services, expenses, materials, fixed assets, and possibly some other types of claims. Although often used interchangeably, it would seem that the two terms really have different meanings. Description of a liability as a "voucher payable" should signify that the claim has been subjected to a formal scheme of audit and approval, as part of what is commonly known as a "voucher system," and is now fully admitted as a liability in the amount shown. On the other hand, the term "account payable" may indicate only that the claim has been received and recorded but bears no connotation as to formal audit and approval or as to whether the claim is fully admitted as a liability of the fund against which it is made. Liabilities in this stage are sometimes described as "unaudited vouchers."

Description of a voucher system

To clarify the meaning of the term "vouchers payable," a brief description of a voucher system is given. In actual practice some deviations or omissions may be made from the procedure outlined below, but in principle a voucher system includes the following steps:

1. Preparation of a summary, in a prescribed form, of important information about each transaction which is to culminate in the disbursement of cash. Information commonly incorporated in this summary includes the name and address of the creditor to whom payment is to be made, the reason for payment, a detailed statement of charges, and the terms of payment. The detailed statement of charges should include a description of each item, unit prices of items, the total for each item, and the total amount owed. (See Illustration 14–1.) Ordinarily, bills or invoices submitted by creditors supply most of the information required for the summary. To assure adequate information about claims for goods and services, a standard invoice form may be furnished to creditors with the stipulation that claims will be recognized only if submitted on the prescribed form. Some claims may not be evidenced by formal statements from creditors; and for these it is necessary to rely upon internal records of contracts, indebtedness, and other similar relationships. The summarizing process described above is largely a matter of transcribing facts from original documents to the standard voucher form.

Most governmental liabilities should be based upon purchase orders or other commitment documents which would ordinarily give important information about the transaction, including the name, number, or other identification of

Illustration 14–1

CITY OF X

VOUCHER

Date *December 5, 1969* Voucher No. *G 69-773*
To Whom Payable *Jasper Furniture Co.*
Address *Jasper, Indiana*

Invoice No.	Invoice Date	Items	Amount
E 962	*11-29-69*	*1 Table, Office—No. 3-661*	*$55.60*
		Total	*$88.60*

Requisition No. *69-4174* Purchase Order No. *69-1087*
Terms of Payment *n/30* Due Date *December 29, 1969*
Audited by *A.A.O.* Approved by *J.L.H.*

(Front)

Illustration 14–1—(*Continued*)

VOUCHER

Accounts Debited

Account No.	Titles	General Ledger	Subsidiary Ledger
1 415	*Office Equipment*	*$55.60*	*$55.60*
	Total	*$55.60*	*$55.60*

Summary

Voucher No. *G-69-773*
Date *Dec. 5, 1969*
Date Due *Dec. 29, 1969*
Date Paid *Dec. 20, 1969*
Check or Warrant No. *G-2096*
Amount of Voucher $ *55.60*
Cash Discount $ *None*
Net Amount Paid $ *55.60*
To Whom Paid *Jasper Furniture Co.*
Entered in Voucher Register by *B.C.H.*
Posted to Subsidiary Ledger by *D.D.G.*

(Reverse)

the account to be charged for the purchase or other liability. This is desirable in order that an encumbrance may be recorded for the amount expected to be required to cover the liability when it arises. In preparing the formal voucher, designation of the account to be charged should be transcribed from the purchase order or other document which initiated the transaction. Two or more bills payable to the same creditor may and ordinarily should be covered by one voucher.

2. After the summary has been completed, the information contained therein is examined critically for accuracy and for compliance with all pertinent regulations contained in applicable laws, ordinances, or other enactments. Operations of the first series in preparing a formal voucher are essentially mechanical. This, the second series of operations, involves the exercise of judgment and careful analysis to determine the overall validity and regularity of the transaction.

3. The vouchering process may come to a virtual end upon completion of the verification and audit described above; but in some procedures the audited voucher with supporting documents passes into a third and final stage, where the entire transaction with supporting documents is reviewed and normally given final approval for payment.

4. After vouchers have been given final approval, they are entered in a book of original entry, usually called a voucher register, where Vouchers Payable (or Accounts Payable) must be credited for the amount of every voucher, with debits to accounts indicated on the voucher. At some point in the accounting procedure, preferably just before or just after entry in the voucher register, amounts of approved liabilities must be posted to appropriations expenditure accounts. The postings will consist of increases in the Expenditures column; decreases in the Encumbrance column for the amount encumbered for the expenditure; and if the expenditure is more or less than the amount encumbered, an adjustment of the unencumbered unexpended balance. Unpaid vouchers may be entered in a subsidiary vouchers payable ledger; but this is not ordinarily necessary, since the file of unpaid vouchers is actually a subsidiary ledger. When vouchers are paid, the entry for payment must record a debit to Vouchers Payable (or Accounts Payable).

From the above summary, it is apparent that a comprehensive voucher system is most valuable for use in processing a large volume of transactions. It permits the use of clerical-type help for a considerable amount of the work, with provision for control through the auditing and approving operations. In some cases the orthodox voucher system is thought to be unnecessary, and a modified plan is used instead. The degree and nature of modification are variable, the chief differences being in the number of expenditure transactions excluded from the system and in the extent of scrutiny to which vouchered transactions are subjected.

Warrants payable

As will be explained in detail in Chapter 17, on cash procedures, a warrant is essentially a formal certification of the validity of a debt, with

authorization or direction to a financial agent that the debt be paid. This order advances the claim one step beyond the voucher in the settlement process. If the claim is paid immediately, the transaction is recorded as a disbursement of cash with a debit to Vouchers Payable, in a manner to be described in Chapter 17.

It is only when the transaction does not progress immediately from Vouchers Payable to a cash disbursement that the claim should be recorded formally as a warrant payable. Perhaps the most common reason for delaying payment of the claim, after approval of the voucher, is insufficiency of cash, often the result of collecting revenue in large amounts at infrequent intervals. Warrants issued for payment when money becomes available are current liabilities and should be shown as such in a balance sheet. When warrants are issued for future payments, they may be registered before issuance or they may be presented for registration as money becomes available to cover the debt. Since unpaid warrants represent past-due debts, they should be—and usually are—interest-bearing obligations. (See Illustration 14–2).

Illustration 14–2

CITY OF X

WARRANT REGISTER

Name of Fund General

Warrant			Registration			Payment			
No.	Date	Amount	No.	Date	Registrant	To Whom Paid	Interest Paid	Total Paid	Date
476	11-6-69	$ 39.00	207	11-8-69	Joe Land	Same	None	$ 39.00	11-15-69
477	11-6-69	116.00	208	12-7-69	Harold Noe	Same	$0.29	116.29	12-22-69

If the warrants payable stage of liability transactions is to be formally recorded, the following entry may be made (amount assumed):

Vouchers Payable	1,000	
Warrants Payable		1,000

If it is assumed that $20 of interest had accumulated on these warrants and was paid along with the principal amount, the following entry would record the payment:

Warrants Payable	1,000	
Expenditures	20	
Cash		1,020

Under a rigid form of voucher system, the warrant and interest charge paid above would have been converted to a voucher payable totaling $1,020. Although this procedure is theoretically superior, the amount of extra work occasioned by the practice and the small amount of additional payment over the amount approved on the original voucher often militate against its use.

Judgments payable

A judgment payable is a liability based upon a court decision. Liabilities of this type arise principally from the exercise of the government's right of eminent domain in securing property for public purposes and from court awards for damages alleged to have been caused by government action, such as cancellation of contracts, dismissal of employees, injury to persons or property, and even for unpaid bills which may be in dispute. Judgments based upon actions of the general government are likely to be liabilities of the general fund; but on account of their construction and operating activities, capital projects funds, special assessments funds, enterprise funds, and even some intragovernmental service funds incur liabilities established either in fact or in amount, or both, as a result of court decisions.

Accounting for judgments in governmental practice does not follow the pattern of commercial accounting. In commercial accounting, as soon as reasonable possibility of unfavorable court action is established, sound accounting practice recommends recording a liability to cover the estimated amount of the prospective payment. In accounting for governmental funds which are controlled through appropriations, the advance provision for the contemplated liability cannot be made without an appropriation by the legislative body. If a sufficient balance is available to cover the judgment, the legislative body may make an additional appropriation to be financed from that source. If a balance sufficient to cover the amount of the judgment is not available, no recognition of the liability, not even an encumbrance, can be recorded until the legislative body has appropriated for the claim. In the absence of a sufficient balance

to cover what appears to be a legitimate claim, a balance sheet footnote may be used to report the liability.

After a legal appropriation for the judgment has been made, an encumbrance may be recorded; or, on the other hand, it may be dispensed with on the ground that the appropriation is so closely restricted as to prevent its use for any other purpose and that, therefore, no encumbrance is required. If it is desired to record the judgment liability before it is vouchered for payment, the following entry would be made (amount assumed):

Expenditures	3,000	
Judgments Payable		3,000

An entry of this sort should be carefully explained and supported by reference to the documentary evidence on which the claim is based. If the appropriation had been encumbered, the above entry should be preceded by one reversing the encumbrance. If the fund employs a voucher system, the judgment liability would be converted to a voucher payable in the standard manner prescribed for vouchering other claims for payment, followed by payment in the customary way.

Since some enterprise fund accounting systems conform to conventional commercial practices and are not regulated through formal appropriations, it is apparent that a contingent judgment against such a fund may be recorded in the commercial manner, that is, by a reservation of fund balance in the period in which the contingency becomes apparent. Although judgments are presently under consideration for their liability aspects, it may not be amiss to recall that judgments result in capital expenditures if they bring about the acquisition of property or add to the cost of property already owned.

In the foregoing discussion, it has been assumed that judgment liabilities are always liquidated directly by payment as an expenditure of the fund. This is not always true; judgments are sometimes so large that to pay them immediately through a tax levy would impose a severe burden on the taxpayers. In such a case the judgment liability may be funded through an issue of bonds to be liquidated gradually over a period of years.

Notes payable

As in commercial practice, notes payable are employed by governments principally as forms of financing intermediate to accounts or vouchers payable, on the one hand, and bonds payable, on the other. Notes payable are normally for larger amounts and longer terms than accounts or vouchers payable, but for smaller amounts and shorter maturities than bonds. When the necessity for debt financing of current operations exceeds the limit of "open account" credit, the necessary cash may be obtained by the issuance of notes. If large-scale capital requirements

arise from the maturity of a debt already outstanding, from fixed asset requirements, or from other causes, but it is not deemed necessary or desirable to finance on a long-term basis, notes to mature a few years from the date of issuance may be employed, particularly by enterprise funds.

One frequent use of notes by governments is to provide operating cash pending the receipt of revenue in a lump sum. For example, in one midwestern state, property taxes are collected in two installments by the county, which makes distribution to the other units of local government semiannually in June and December. Those units which rely substantially upon property tax revenue often find it necessary to borrow cash for operations to cover expenses until the semiannual settlements are received from the collecting agent.

Authority to issue notes should be controlled strictly by the legislative body. The procedure to be followed in authorizing the issuance of notes may be dictated by state law and is likely to include formal action by the legislative body, evidenced by a resolution recorded in its minutes book and even by documentary evidence of the authorization, to be presented to the lending agent. Compliance with all legal requirements is of vital importance, in order to protect individuals connected with the transaction from contingent personal responsibility.

When the note is issued, the following entry should be made (amount assumed):

Cash	20,000	
Notes Payable		20,000

Since payment of the note does not involve the expenditure of revenue but the liquidation of a liability already recorded by the fund, the entry to record the payment will debit Notes Payable rather than Expenditures.

Payment of notes issued by governmental units is sometimes secured by pledges of specific money expected to be received in the future. This practice was first referred to in Chapter 3. Thus, a revenue fund which receives its money in lump sums at considerable intervals may borrow money on notes secured by pledges of proceeds from the collections. Notes so secured are commonly referred to as "tax anticipation notes"; but the caption "tax anticipation warrants" is sometimes found. An enterprise fund may issue notes secured by pledges of future revenue, the maturity of the notes extending over two or three years. Obligations of this kind may be described as "revenue notes payable."

Governmental funds expecting to issue bonds to finance the construction of fixed assets may find it advantageous to postpone the issuance of the bonds for some time after the beginning of the construction, in order to get a more accurate measure of the amount required to be raised by bonding. Temporary financing of the project may be provided by the issuance of relatively short-term notes, secured by pledges of repayment from the proceeds of the bonds when issued. Notes issued for that

purpose and secured in that manner are ordinarily called "bond anticipation notes payable." Notes of this kind are typically short-term obligations of the funds that will issue the bonds. Bond anticipation notes are most likely to be found in funds of the capital projects and special assessments categories, but could be used by enterprise funds.

Contracts payable

This account title is a vitally important one in capital projects and special assessment fund accounting. It has been discussed in Chapters 6 and 10 to such an extent that repetition seems of little value at this point. One fact about retained percentages which has not previously been mentioned is that they may be recognized merely by leaving them as unpaid balances of the Contracts Payable account. Their special importance seems to justify a separate account.

Withholding liabilities

Governmental funds which are responsible for payment of salaries and wages are likely to be responsible also for withholding amounts from earnings of employees and making disposition of these amounts in compliance with laws or other regulations. The most common types of withholdings are for federal income taxes, FICA (Social Security) taxes, and contributions to private pension or retirement funds. Deductions from employees' pay for contributions to retirement and pension funds usually must be matched by the employer, in this case the governmental unit. Until remittance to the governmental agency which handles collections, all withholdings, deductions, and contributions are current liabilities. Even though accounting for the employing fund is not on a strict accrual basis for salaries and wages that have been earned but not yet paid at the ends of fiscal periods, all required withholdings, deductions, and contributions applicable to earnings already paid are definite liabilities and should be recorded in full before the preparation of the financial statements. In connection with liabilities associated with payrolls, it is imperative that detailed records of withholdings, deductions, and contributions be kept for each employee. This can best be done by the use of an individual earnings record on a form prescribed by law or on one of the standard forms for such purposes, available from stationers. Employees' individual earnings records constitute a subsidiary ledger for the amounts shown by the general ledger to have been withheld or deducted from employees' pay.

Although outstanding encumbrances are sometimes shown on balance sheets as liabilities, the practice is of doubtful validity; they are better described as reservations of appropriations.

Other short-term liabilities

The liabilities discussed above do not constitute an exhaustive list of short-term liabilities found on governmental balance sheets. There are

several others; but because of space limitations, they have not been discussed in detail. The basis for omission has been the relative infrequency of occurrence or the fact that the omitted item has been given rather careful consideration elsewhere. Among the omitted liabilities of short-term duration may be mentioned matured bonds payable, matured unpresented bonds and interest coupons, deposits by customers and others, amounts due to other funds or other units of government, and deferred credits to revenue, such as taxes collected in advance and prepayments on utility bills not yet due.

LONG-TERM DEBT

Notes payable

Although long-term financing by governments is predominantly in the form of bond issues, limited usage is made of notes payable. Notes may be used for relatively large-scale borrowing which is expected to be limited to a few years, ordinarily not more than five. In general, they are likely to be secured by pledges of revenue, which obviates the legal formality and expense of preparing a bond issue and, therefore, reduces the average annual financial charge. Regardless of the intended source of payment for notes of the longer maturities, if they are ultimately secured by the full faith and credit of the governmental unit, they are a potential charge against taxpayers. For this reason, unless specifically excluded by law, they should be considered as a part of the long-term debt liability of the governmental unit in calculating debt limits and debt margins, terms to be discussed later in this chapter. Long-term notes payable of utilities or other similar enterprises should be shown in total as liabilities of the fund that will make payment. If long-term notes are to be retired by a fund operated on an annual basis under a formal budget, only the principal to be retired in a given year should be recorded in the fund accounts of that year.

Bonds payable

Examination of financial reports of only a few governmental units reveals a wide variety of bonds. The principal differences among government bonds appear to revolve around three factors, as follows:

1. Reasons for which the bonds were issued.
2. Sources from which they are to be retired.
3. Security behind the bonds.

As to the reasons for which bonds are issued, a major portion serves one or the other of the following three purposes:

1. To finance acquisition of fixed assets, sometimes including complete utility plants, either through construction or outright purchase, or a combination of the two. Bond issues for these purposes are usually functions of capital projects funds, special assessment funds, or enterprise funds.

2. To refund bonds or other large amounts of indebtedness which have matured but for which money is not available to make payment. The prevalence of refunding issues has been increased by the reluctance of public officials to levy taxes for debt retirement if it can be avoided in any way whatever, coupled with the willingness of investors to have debts refunded as long as the ultimate security of the investment is sound. Refunding bonds are typically issued through the medium of debt service funds; but utility bonds are sometimes refunded, and the operation is accounted for in the utility fund.

3. To fund deficits that have developed in revenue funds or to finance emergency requirements which revenue funds are unable to absorb in their current operations. Obviously, requirements must assume major proportions before funding by a bond issue is justified.

The main sources of money for the ultimate retirement of government bonds are governmental revenue and special assessments against property owners. Special assessments against property owners are sometimes supplemented by assessments against, or contributions from, governmental funds, but these supplementary amounts originate from current revenues or special bond issues of the paying fund. As explained in Chapter 10, on special assessment funds, levies against property owners provide assets that, when realized, may be used to retire bonds issued by the fund. Therefore, special assessment bonds are recorded, from the time of issuance until the time of payment, as liabilities of the fund by which they were issued.

The majority of governmental bonds are retired from revenue. Although the designation "revenue bonds" is ordinarily confined to use in describing those issued by self-supporting enterprises, to be retired from their earnings, most other government bonds are paid either directly or indirectly from revenue in the form of taxes of one kind of another. Liquidation of the bonds may be managed by a fund that collects the revenue, as for serial bonds paid by general or special revenue funds; or revenue collections may be transferred to a debt service fund for accumulation and subsequent disbursement upon the maturity of the bonds to be retired.

Security for bonds

It is common knowledge that bonds issued by commercial corporations are usually secured by liens upon tangible property owned by the corporation. This arrangement appears to be rare in the field of governmental finance and confined to property not serving essential public use, one example being toll bridges, which are sometimes pledged as security for bond issues. The probable reason why governmental assets in general are not offered as security for indebtedness is that their uninterrupted use for public service is far more important than the satisfaction of a creditor's claim; therefore, the danger of having them converted to private ownership must not be risked.

Bonds issued by a utility are usually secured by the pledge of certain portions of the utility's revenue, the exact terms of the pledge varying with individual cases. Some utility bonds are secured not only by a pledge of a certain portion of the utility's revenues but also by an agreement on the part of the town's or city's general government to subsidize the utility in any year in which its normal revenue is inadequate for compliance with the terms of the bond indenture. Revenue bonds of a utility sometimes carry the additional pledge of the governmental unit's full faith and credit if necessary to meet obligations under the bond issue.

With respect to security, special assessment bonds are somewhat similar to utility bonds. Their immediate security lies in the governmental unit's legal authority to foreclose upon claims against private properties if necessary to enforce collections of assessments. In the main, this security is adequate; but some special assessment bonds, like some utility revenue bonds, carry the additional protection of the government's full faith and credit, as pointed out in Chapter 10. The term "full faith and credit," it will be understood, means in effect that if other methods fail to provide for the retirement of the designated bonds, the government convenants to use its general power to tax as a method of preventing loss to bondholders.

An example of what "full faith and credit" means in operation is the case of a midwestern city where auditors, in examining the special assessment funds, discovered that a large amount of installments collected by one fund had been diverted to pay bonds issued by another fund, which had failed to make collections. Since bonds of the fund from which the diversion was made were of the general special assessment type, they were paid ultimately by the general fund from a tax levy on all property. This experience is not an isolated one in the history of special assessment funds.

General bonds probably account for one half to three fourths of all government bonds outstanding. The term "general bonds" is used to describe those that will be retired from revenue to be accumulated by general or special revenue funds, mostly the former. Unlike public enterprise and special assessment bonds, there appear to be no cases of primary and secondary security for general bonds; their sole security is the revenue-raising power, largely the power to tax, possessed by the funds responsible for making payment.

Conditions of payment

Planning for payment of government bonds, which should be incorporated as part of a long-term budget, is affected by the maturity provisions of outstanding bonds. They may mature in a lump sum at some future date, or they may mature in installments of specified amounts at specified future dates. As has been indicated by discussion in previous chapters, those of the first type are commonly referred to as "term bonds," whereas those that mature in a series are referred to as "serial bonds." In the past, term bonds have been used too often without systematic provision,

through sinking funds or otherwise, for their retirement, with the result that one or more refundings have been necessary. Serial bonds, with relatively small amounts falling due in any one year, serve to spread the debt burden over a more or less long period. Serial maturities allow payments to be financed out of annual current appropriations, without the necessity of a sinking or reserve fund. At present their use is predominant.

Government bonds are sometimes issued with a callable provision, under the terms of which the government is given the right to acquire the bonds before the maturity date, usually by the payment of specified amounts of premium. Although the callable feature may require a slightly higher interest rate for the bonds to compensate investors for possible disruption of their investment programs, it is valuable to the government. It facilitates the use of surplus current funds for debt retirement and reduction of future interest charges.

General bonded debt group of accounts

As indicated in previous chapters, bonded debts of special assessment funds, utility funds, and self-supporting enterprises generally are carried as part of the financial structure of the funds to which they pertain. Such bonds will normally be retired from assets provided by the issuing funds, which operate on a continuing basis. The foregoing statements are not true of general bonds. Since general and special revenue funds operate under a year-to-year system based upon the appropriations and revenues of each separate year, indebtedness scheduled to mature years hence may not properly be included as part of their present financial structure.

Presently a difference of opinion exists as to whether in accounting and reporting for long-term debt, only principal, or both principal and interest, should be included. The present position of the National Committee on Governmental Accounting favors the inclusion of only principal, while others consider the interest burden, sometimes almost as large, also worthy of being reported. The latter view has been adopted for this chapter (1) because of some preference for that position and (2) if it is believed the more restricted view is the better the only thing necessary to be done is to ignore all accounting and reporting for interest requirements. Accounting for principal requirements is totally independent of accounting for interest.

Some governmental units maintain only memorandum records of long-term general debt. This practice is adequate only when the amounts of indebtedness are so small as to require little advance planning for proper management. When outstanding long-term debt is large in amount, it is advisable to make use of a self-balancing group of accounts commonly referred to as the "general bonded debt and interest group," or, if long-term notes are to be included, as the "general long-term debt and interest group." This accounting device cannot truthfully be de-

scribed as a fund because it does not represent an aggregate of cash or other resources to be used for specific purposes. Fundamentally, the ledger for this group of accounts is a collection of accounts showing the following information:

1. Accounts with credit balances: one account for each separate issue of liabilities included in the amount of long-term general debt currently outstanding, and one for interest payable in future years.
2. Accounts with debit balances, two to four in number. The balances of two may show assets already secured and set aside, in debt service funds or elsewhere, for the retirement of long-term debt or payment of interest. The balances of the other accounts will show the amounts required to be secured in the future for long-term debt retirement and payment of interest. The balances of the latter accounts will be the remainder obtained by subtracting the funds already provided from the requirements listed in the credit section.

The purposes of this group of accounts do not require the use of operating accounts, all changes being made directly in the basic accounts.

Entries for long-term debt principal

If it is assumed that no long-term debt is outstanding, the first entry in the group will be made when general bonds or long-term notes are issued. Assuming that a governmental unit issued $500,000 par value of sinking fund bonds, the following entry should be made in the general bonded debt and interest group:

Amount to Be Provided for Retirement of Bonds............	500,000	
Sinking Fund Bonds Payable.........................		500,000

For the debit member of the above entry the title Deferred Charges to Future Taxation is sometimes used. Even though long-term debt is issued at a premium or discount, the general debt group entry will be in the amount of the par value, since that is the amount to be paid at maturity, for which assets must be accumulated.

The next entry in this group, with respect to the bonds recorded above, will be made at the end of the first year of debt service fund operation or upon any other action which definitely allocates assets to the payment of long-term general debt. This would include the *levying* of a special tax for servicing the debt. At the time of reporting or recording the allocation of assets to retirement of the debt, the amount allocated will be recorded in the debt and interest group of accounts. Assuming that the Fund Balance of the debt service fund established for the $500,000 debt showed a balance of $50,000 after closing at the end of the year the following entry would be made in the long-term debt and interest group:

Amount Provided for Retirement of Bonds..................	50,000	
Amount to Be Provided for Retirement of Bonds..........		50,000

Annual entries similar to the foregoing will be made in the group accounts to record net increases in the debt service fund during the year. Amounts

of assets made available in any other way will require an entry in the same form as the one shown above.

Upon the maturity of a long-term debt for which assets have been accumulated, payment will be made by the fund designated to manage the transaction or perhaps by a separate fiscal agent. Whatever the mechanics of payment, *recording* the debt in a fund which will pay it is the signal for removing it from the general long-term debt and interest group, by an entry such as the following:

Sinking Fund Bonds Payable	500,000	
Amount Provided for Retirement of Bonds		500,000

If serial bonds have been issued, an entry similar to that for recording the issuance of term bonds will be made in the general debt group. The account credited will signify the type of bonds represented by the issue. If assets are accumulated in advance for the payment of serial bonds, that fact will be recorded in the same manner as when term bonds are involved. Assuming that a debt service fund appropriation for a given year authorizes expenditures of $20,000 for the retirement of serial bonds, the following entry might be made in that fund:

Expenditures	20,000	
Bonds Payable		20,000

If occasion exists for doing so, an entry might be made at this time in the general debt group to transfer $20,000 from the Amount to Be Provided for Bond Retirement account to the Amount Provided for Retirement of Bonds account. Ordinarily, this would appear to be unnecessary.[1] When payment of the bonds has been accomplished by the debt service fund, that fact should be recorded in the general bonded debt group by the following entry:

Serial Bonds Payable	20,000	
Amount to Be Provided for Retirement of Bonds		20,000

Long-term interest requirements

In governmental units having large amounts of long-term indebtedness, total future interest requirements on debts will be very large, possibly exceeding total principal. As stated previously, some governmental administrations and legislative bodies desire a statement combining principal and interest requirements.

To provide a systematic record of long-term interest requirements, it is desirable to record the necessary information in journal entries similar to those used for information about principal. When bonds are issued, probable future interest requirements should be computed and journalized as follows, amount assumed:

Amount to Be Provided for Payment of Interest	60,000	
Interest Payable in Future Years		60,000

[1] Unless financial statements are to be prepared before *retirement* of the bonds.

Payment of any part of the interest represented in the above entry would require an entry similar to the following, amount assumed:

Interest Payable in Future Years	4,000	
Amount to Be Provided for Payment of Interest		4,000

Since the bonded debt and interest accounting structure is only a self-balancing group of accounts, the cash disbursement for interest will be accomplished by an actual fund. Advance accumulation of assets for future interest payments is not common because annual interest payments are in relatively small amounts. If for any reason, sound or unsound, there is advance accumulation for interest payments, the required entries would follow the pattern of those used for principal transactions.

Statement of condition

At the end of each fiscal year, while long-term debt is outstanding, a self-balancing summary statement of debt, or of debt and interest, should be prepared. The purpose of such a statement is to show the following information, assuming inclusion of interest accounting and reporting:

1. The kinds and amounts of long-term debt currently outstanding.
2. Total future interest requirements on indebtedness shown in item 1.
3. Amounts of assets already set aside for payment of items 1 and 2.
4. Amounts required to be provided in the future for payment of items 1 and 2.

The formal statement of the foregoing information is variously called "statement of general long-term debt," "statement of general long-term debt and interest," and "balance sheet." The statement is a balanced one, but its contents are not indicative of the financial condition of any fund, so the name "balance sheet" is inappropriate. Composition and exact form of the statement vary with different situations and contents, but Illustration 14–3 is a fair sample. One favored variation is the separation into two groups of "available and provided" information, one for term bonds, the other for serial bonds.

A few generalizations about this sort of statement might prove informative.

1. It contains no information not available elsewhere, but serves the purpose of summarizing in convenient form the related information of which it is composed.

2. The amount already provided for bond retirement consists of assets held by debt service funds. Actually, amounts allocated to retirement of general bonds may be held by the general fund and even by special revenue funds. If assets for bond retirement are held by other than debt service funds, the caption "Amount Available in Debt Service Funds" should be appropriately modified.

3. Amounts of bonds outstanding and future interest requirements are likely to be shown in detailed schedules of indebtedness and interest requirements. If comprehensive schedules of *all* principal and interest are prepared, amounts applicable to *general* indebtedness will be selected for the statement of general long-term debt and interest. Amounts applicable to utility and special

Illustration 14–3

TOWN OF LYONS

Statement of General Long-Term Debt and Interest
April 30, 1969

Amount available and to be provided for payment of general long-term debt and interest:	
Principal:	
Amount available in debt service funds	$1,370,000
Amount to be provided in future years	5,710,000
Total available and to be provided for principal	$7,080,000
Amount to be provided in future years for payment of interest*	2,379,400
Total Available and to Be Provided	$9,459,400
General bonds, notes, and interest payable in future years:	
General bonds:	
Term bonds payable	$2,600,000
Serial bonds payable	3,520,000
Total general bonds payable	$6,120,000
Five-year revenue notes payable	960,000
Total general bonds and notes payable	$7,080,000
Interest payable in future years	2,379,400
Total General Bonds, Notes, and Interest Payable	$9,459,400

* If any prior accumulations have been made for interest payments, both "provided" and "to be provided" would be shown for interest, as for debt principal. Furthermore, if interest information is not considered significant to the long-term debt situation it may be omitted without alteration of the parts dealing with principal, but with omission of "and interest" from the name of statement.

assessment bonds, for illustration, will not be included because these debts are not general.

A comprehensive statement of bonded indebtedness is shown in Illustration 14–4. Although only three classes of bonds are represented, the structure and details are typical. This statement provides an analysis of the total general bonds amount which will appear in a statement of general bonded indebtedness. A similar analysis is given for the bonds payable total in a special assessment funds balance sheet.

The importance of the bonded debt group of accounts and its related statements as a means of debt management is readily evident from examining the financial reports of leading municipalities. Some go a step further than the itemizing of bonded indebtedness and provide schedules of total debt service requirements. The term "debt service" is sometimes used to describe amounts required to be paid in a given year toward the reduction of principal, but the more common usage is to include annual amounts needed for both principal and interest. Payments applicable to principal should include required contributions to debt service funds, as well as direct disbursements if any, by general and special revenue funds. An example of such a statement is found in Illustration 14–5, representing, with minor modifications, the statement of annual debt service requirements found in the annual report of a large city.

Illustration 14-4

CITY OF FT. BRANCH

Statement of Bonds Payable*
December 31, 1969

Description	*Series No.*	*Effective Rate of Interest*	*Date of Issue*	*Date of Final Maturity*	*Authorized and Issued*	*Maturities to 12/31/69*	*Bonds Payable 12/31/69*	*Bonds Maturing 1970*
General Obligation Bonds:								
Deep water harbor	1928	4.50%	7-27-30	7-2-70	$ 3,000,000	$2,850,000	$ 150,000	$ 75,000
Streets, sewers, fire station	1961A	2.67	6-01-61	6-1-81	3,363,000	1,035,000	2,328,000	150,000
Streets	1961B	3.36	2-01-62	2-1-82	1,350,000	265,000	1,085,000	60,000
Streets	1961C	3.54	2-01-63	2-1-83	4,563,000	713,000	3,850,000	170,000
Library	1965	3.09	9-01-65	9-01-85	1,740,000	75,000	1,665,000	35,000
Total General Obligation Bonds					$14,016,000	$4,938,000	9,078,000	$490,000
Revenue Bonds:								
Off-street parking	A	4.75%	6-01-62	12-01-92	$ 1,400,000	$ 176,000	$1,224,000	$ 30,000
Off-street parking	B	3.96	12-01-63	12-01-94	540,000	52,000	488,000	10,000
Total Revenue Bonds					$ 1,940,000	$ 228,000	$1,712,000	$ 40,000
Special Assessment Bonds:								
Streets and sewers—Walnut Manor	111	3.25%	3-07-60	7-02-70	$ 14,214	$ 12,804	$ 1,410	$ 1,410
Streets and sewers—Brookside	112	3.50	6-09-60	7-02-70	48,195	45,895	2,300	2,300
Sanitary sewers—College View	113	4.25	8-29-60	7-02-70	49,191	44,391	4,800	4,800
Swimming pool—El Ricardo	140	5.00	12-02-68	7-2-84	59,023	2,618	56,405	2,618
Water reservoir—Lemon Lane	141	4.27	2-15-69	7-2-84	37,706		37,706	2,560
Storm sewers—Sherwood Oaks	142	4.12	2-15-69	7-2-84	119,336		119,336	7,900
Total Special Assessment Bonds					$ 2,179,712	$ 831,281	$1,348,431	$ 56,612

* Based on a statement in the annual report of a large city

Illustration 14–5

CITY OF GREENVILLE

Annual Bond Interest and Redemption Requirements*
Based on Indebtedness Outstanding at December 31, 1969

		General			Public Service Enterprises		
Year	*Grand Total*	*Total*	*Bond Redemption*	*Bond Interest*	*Total*	*Bond Redemption*	*Bond Interest*
1970	$ 30,599,074	$ 17,609,210	$15,156,000	$ 2,453,210	$ 12,989,864	$ 9,523,000	$ 3,466,864
1971	25,707,837	13,690,406	11,590,000	2,100,406	12,017,431	8,875,000	3,142,431
1972	26,060,937	13,079,013	11,275,000	1,804,013	12,981,924	10,140,000	2,841,924
1973	23,653,372	11,561,437	10,025,000	1,536,437	12,091,935	9,550,000	2,541,935
1974	22,043,453	10,602,838	9,320,000	1,282,838	11,440,615	9,190,000	2,250,615
1975	20,993,970	9,737,425	8,700,000	1,037,425	11,256,545	9,290,000	1,966,545
1976	18,080,275	8,373,900	7,575,000	798,900	9,706,375	8,005,000	1,701,375
1977	15,738,987	7,249,150	6,665,000	584,150	8,489,837	7,025,000	1,464,837
1978	13,120,637	5,354,862	4,950,000	404,862	7,765,775	6,505,000	1,260,775
1979	11,010,182	3,438,169	3,155,000	283,169	7,572,013	6,505,000	1,067,013
1980	10,082,731	2,835,344	2,645,000	190,344	7,247,387	6,375,000	872,387
1981	9,392,944	2,338,231	2,220,000	118,231	7,054,713	6,375,000	679,713
1982	6,999,725	985,738	930,000	55,738	6,013,987	5,525,000	488,987
1983	4,198,788	663,575	635,000	28,575	3,535,213	3,195,000	340,213
1984	3,875,437	644,525	635,000	9,525	3,230,912	2,985,000	245,912
1985	2,930,663				2,930,663	2,760,000	170,663
1986	2,119,850				2,119,850	2,010,000	109,850
1987	1,712,787				1,712,787	1,660,000	52,787
1988	366,300				366,300	360,000	6,300
1989	360,450				360,450	360,000	450
	$249,048,399	$108,163,823	$95,476,000	$12,687,823	$140,884,576	$116,213,000	$24,671,576

* This illustration derived from a similar statement in the published annual report of a very large city. Not included in this statement are $118,398,000 of unsold bonds.

Statement of debt burden

Another statement designed to set forth the extent and significance of bonded indebtedness is advocated by the National Committee on Governmental Accounting and is being employed by governmental units to an increasing extent. This is a statement showing the ratio of net general long-term debt to assessed value, and net long-term debt per capita. As indicated by the descriptive title, this statement correlates the long-term debt burden with the property to which it applies and with the source of payment, the citizenry. However, it may be pointed out that the latter comparison might carry greater significance if it were on a per taxpayer basis rather than a per capita basis, since a relatively large percentage of the population pays no property taxes directly. An example of the ratio statement is shown in Illustration 14–6.

Debt limitation

The debt statements already illustrated in this chapter are primarily useful for the information of administrators, legislative bodies, and others concerned with the impact of long-term debt upon the financial condition and activities of the governmental unit, particularly with reference to the resulting tax rates and taxes. Another matter of importance in relation to long-term indebtedness is legal limitation upon the amount of long-term indebtedness which may be outstanding at a given time, in proportion to the assessed value of property within the jurisdiction represented. This type of restriction is of importance as a protection of taxpayers against possible confiscatory tax rates. Even though tax-rate limitation laws may be in effect for a governmental unit, the limitation upon bonded indebtedness is usually needed because the prevailing practice is to exempt the claims of bondholders from the barrier of tax-rate restrictions. This is to say that, even though a law establishing maxima for tax rates is in the statutes, it will probably exclude debt service requirements from the restrictions of the law. This exclusion would be reiterated, in effect, in the bond indentures.

Before continuing a discussion of debt limitation, it seems well to clarify the meaning of the terms "debt limit" and "debt margin." Debt *limit* means the total amount of indebtedness of specified kinds which is allowed by law to be outstanding at any one time. The limitation is likely to be in terms of a stipulated percentage of the assessed valuation of property within the government's jurisdiction. It may relate to either a gross or a net valuation. The latter is logical, but probably not prevalent, because debt limitation exists as a device for protecting property owners from confiscatory taxation. For that reason, taxpaying property *only* should be used in regulating maximum indebtedness. In many governmental jurisdictions, there is much property which is legally excluded even

Illustration 14-6

CITY OF PORTLAND

Rate of Bonded Debt to Assessed Value
and Bonded Debt per Capita, 1960–69, Inclusive*

Year	Estimated Population	Assessed Valuation	Gross Bonded Debt Exclusive of Special Assessment Debt	Debt Payable from Nontax Revenues	Net Bonded Debt Payable from Taxes	Ratio of Bonded Debt to Assessed Valuation		Per Capita Debt	
						Gross	Net	Gross	Net
1960	98,265**	$184,516,620	$17,395,000	$ 9,449,000	$ 7,946,000	9.43%	4.31%	$173.95	$ 79.46
1961	100,000	186,584,430	17,586,000	9,119,000	8,467,000	9.43	4.54	175.86	84.67
1962	100,000	190,558,730	18,294,000	9,498,000	8,796,000	9.60	4.62	188.54	90.65
1963	100,000	193,228,190	21,658,000	11,972,000	9,686,000	11.21	5.01	220.40	98.57
1964	100,000	194,880,030	21,946,000	11,483,000	10,463,000	11.27	5.37	219.46	104.63
1965	100,000	194,515,090	20,913,000	10,980,000	9,933,000	10.75	5.11	209.13	99.33
1966	100,000	195,524,160	20,884,000	11,454,000	9,430,000	10.52	4.75	208.84	94.30
1967	100,000	203,525,400	19,988,000	10,895,000	9,093,000	9.82	4.47	199.88	90.93
1968	100,000	213,189,000	20,291,000	10,317,000	9,974,000	9.52	4.68	202.91	99.74
1969	100,000	226,396,150	20,441,000	9,721,000	10,720,000	9.03	4.74	204.41	107.20

* Derived from a report of this description in the annual report of a medium-sized city.
** Census.

from *assessment*. This includes property owned by governments, churches, charitable organizations, and some others depending upon state laws. *Exemptions*, which apply to property subject to assessment, are based on homestead or mortgage exemption laws, military service, economic status, and possibly some others. Both exclusions and exemptions reduce the amount of taxpaying property.

Debt *margin*, sometimes referred to as "borrowing power," is the difference between the amount of debt limit calculated as prescribed by law and the net amount of outstanding indebtedness subject to limitation. The net amount of outstanding indebtedness subject to limitation, unless otherwise specified by law, is the difference between total long-term indebtedness and a subtraction factor consisting of one or more of the following:

1. Special assessment fund bonds which are of the special-special assessment variety, unless these are specifically designated as full faith and credit liabilities.
2. Revenue bonds and revenue notes which are not secondarily secured by the full faith and credit of the issuing governmental unit.
3. Bonds issued by instrumentalities of the governmental unit, secured only by revenue and resources of the instrumentalities.
4. Amounts accumulated in debt service funds, or elsewhere, to apply on payment of indebtedness subject to the limitation.
5. Any other long-term indebtedness which, while normally subject to debt limitations, is specifically exempt by statute or has been exempted by a favorable vote by taxpayers.

In practice, it is unwise to rely upon theoretical generalizations as to which debt is subject to limitation and which is not. For example, some governmental units require inclusion of bonds which have been authorized but not yet issued, presumably because this potential debt has, by authorization, passed beyond control through remonstrances and the ballot box. Debt limitations are established by state and local enactments (constitutions, charters, laws, ordinances), and these are the only fully reliable sources of information.

Like the forms of most other statements in wide usage, the form of statements of debt limit and margin is variable. Some variations reflect differences of opinion as to the best form for setting forth the desired information, whereas some arise from differences in law. An example embodying the essentials of such a statement is shown in Illustration 14–7.

Overlapping debt

Debt limitation laws ordinarily establish limits that may not be exceeded by each separate governmental unit affected by the laws. This means that the county government may incur indebtedness to the legal limit, a township within that county may do likewise, and a city within the township may become indebted to the legal limit, with no restriction

Illustration 14–7

TOWN OF ELNORA

Statement of Legal Debt Margin
September 30, 1969

Assessed value of real and personal property			$21,407,100*
Rate of debt limitation			15%
Amount of debt limitation			$ 3,211,065
Long-term debt outstanding:			
Bonded debt (Schedule —)		$2,967,200	
Other debt—notes and warrants payable (Schedule —)		152,600	
Total long-term debt outstanding		$3,119,800	
Less deductions:			
Items not subject to debt limit:			
Electric utility revenue bonds	$267,900		
Bond anticipation notes payable—special assessment fund	80,300		
Street improvement bonds	418,000		
Warrants payable—electric utility fund	31,000		
Total	$797,200		
Amount accumulated for debt retirement	163,500		
Total deductions		960,700	
Net debt subject to limitation			2,159,100**
Legal Debt Margin—Amount Available for Future Indebtedness			$ 1,051,965

* This figure should include intangible personal property (securities, receivables, etc.) if subject to local taxation. If not taxed locally it would provide no assistance in debt service.

** If there were authorized but unissued bonds which are required to be applied against the limitation, this amount ($2,159,100) could be moved under the $960,700 and the unissued bonds added to it, then their total deducted from the amount of limitation. Or, after rewording the description of the $1,051,965, the unissued bonds could be deducted from that amount, to arrive at the debt margin.

because of debt already owed by larger territorial units in which it is located. As a result, a given parcel of real estate or object of personal property may be the basis of debt beyond the so-called "legal limit" and also may be subject at a given time to assessments for the payment of taxes to retire bonds issued by two or more governmental units. When this situation exists, it is described as "overlapping debt."

The extent to which debt may overlap depends upon the number of units represented within an area which are authorized to incur longterm indebtedness. These may include the state, county, township, city, school board, library board, hospital board, and probably others. To show the total amount of fixed debt against property located within a given jurisdiction, a statement of direct and overlapping debt may be prepared. A statement of this type begins with the direct debt, which is that owed by the governmental unit represented by the statement. To this direct debt are added amounts owing by other units and authorities which levy taxes against the same property on which the direct debt is based. A statement of direct and overlapping debt is shown in Illustration 14–8.

Illustration 14–8

CITY OF KINGSTON

Statement of Direct and Overlapping Debt*
September 30, 1969

Taxing Authority	*Gross Debt less Sinking Fund Assets*	*% of Debt Applicable to City of Kingston*	*City of Kingston Share of Debt*
City of Kingston	$15,971,417.74	100.0	$15,971,417.74
Kingston Independent School District	10,677,700.88	95.7	10,218,559.74
McLennan County	1,309,319.77	69.7	912,595.88
La Vega Independent School District	1,788,295.13	37.8	675,975.56
North Kingston Water Supply District	240,943.60	100.0	240,943.60
Total Direct and Overlapping Debt			$28,019,492.52

* Derived from a similar statement in the annual financial report of a municipality.

Other statements of long-term general debt

Although the major kinds of statements by which governments endeavor to explain their long-term debt have been discussed and illustrated above, there are a few others which should be mentioned. One of these is the statement of changes in bonds payable, or bonds and notes payable, during a fiscal period. The nature of this statement is shown in Illustration 14–9.

In order to give a clearer representation of their debt position, some governmental units prepare a statement of debt which has been authorized but is unissued at the date of reporting. The usual composition of this statement is a detailed listing of authorizations having an unissued balance,

Illustration 14–9

CITY OF MONTGOMERY

Statement of Changes in General Long-Term Debt
For 1969

Names of Indebtedness	*Outstanding December 31, 1968*	*Issued during 1969*	*Retired or Refunded during 1969*	*Outstanding December 31, 1969*
4 percent serial bonds	$480,000	...	$40,000	$ 440,000
4½ percent refunding bonds	...	$300,000	...	300,000
4 percent sinking fund bonds	200,000	...	...	200,000
General improvement bonds	175,000	...	25,000	150,000
	$855,000	$300,000	$65,000	$1,090,000

NOTE: If a great many issues of debt are outstanding, they could be summarized by kinds (term, serial, etc.) in schedules and only the class totals shown in this kind of statement.

with a showing for each authorization of the dates, the total amount of authorization, and the par value not yet issued.

A third other form of statement related to bonded indebtedness is a combined statement of bonded indebtedness and general fixed assets. Formerly, some accountants combined general fixed assets and general bonded debts and called the difference an equity figure. This practice had no logical basis. Although large amounts of general fixed assets have been obtained through use of bond issues, the correlation ceases at that point. General bonded debt is not secured by general fixed assets, nor is it liquidated by revenue derived from their use. The suggested combination of general fixed assets and general bonded debt joins all parts of the two separate statements (general fixed assets and general bonded debt) into one summary. No financial relationship between elements of the two groups is indicated or implied. As stated originally, it is a grouping, but is not a merger; there is no "balance." It has had negligible acceptance.

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QUESTIONS

1. In some jurisdictions the statutory debt limit rate is low, but overlapping debt is not prohibited. From the standpoint of the property owner and taxpayer, how does that situation compare with a relatively high total limitation, such as 15 percent?
2. Payments of bond principal and interest and management of investments designated for debt retirement are frequently in charge of banks, trust companies, etc., serving as fiscal agents. Considering that the cost of such service is an additional cost of indebtedness, how can it be justified?
3. Holders of governmental debt instruments do not ordinarily have the right

of foreclosure as a means of enforcing payment of interest and principal. In view of this fact, how can you account for the relatively low rates of interest on government debt?

4. Governmental organizations, especially utilities, are the target of a great many legal actions on account of alleged damages of one sort or another. Should the total amount of such claims pending at the end of a fiscal period be recognized as either ascertained or contingent liabilities? Give a reason or reasons for your answer.
5. What is the difference between "accrued bond interest" and "matured interest coupons payable" in a balance sheet?
6. Is the amount of debt margin of a governmental unit relatively permanent from year to year? Explain your answer.
7. In some governmental jurisdictions the calculation of debt margin must take into account the amount of bonds authorized but not issued. This reduces borrowing power at a given date. What do you think is the reason for including authorized but unissued bonds?
8. In accounting for long-term debt and interest, some question may arise as to the proper time to transfer from the "to be provided" classification to the "provided" classification. Since that is not a contractual situation, what practice or policy should be followed?
9. *a*) When long-term debt is issued at a premium or discount (some governmental units prohibit the latter), what is the effect on the statement of debt, that is, amount to be provided and amount of liability?
   b) Would your answer be the same if the issue were at a premium which is required to be set aside for payment of interest or of principal?
10. A governmental unit issued $100,000 par value of 3 percent bonds due 10 years after August 1, 1969. The bonds were sold at par and accrued interest on November 1, 1969. Show how the principal and interest would appear in a statement of bonded debt and interest at December 31, 1969.
11. If a governmental unit issues indebtedness to the legal limit in a given year, it might conceivably have a negative debt margin or borrowing power in a subsequent year without a change in the debt limit law and through no error or irregularity of administration of debt. Explain briefly how this can happen.
12. Can you think of any important fact revealed by a statement of general bonded debt and interest which is commonly overlooked by the public?

PROBLEMS

1. Below are stated a number of imaginary transactions which indirectly affect members of a general long-term debt and interest group of accounts. You are required to make for each a journal entry to show how it affected elements of the general long-term debt and interest group. Explanations may be omitted.

   (1) The general fund disbursed $21,000 for interest on an issue of general obligation serial bonds. The amount had not previously been segregated for the purpose.

(2) A debt service fund, on January 1, disbursed \$10,000 for interest on an issue of general obligation term bonds. The amount had been accumulated in the previous fiscal year.
(3) A special tax levy of \$50,000, designated to provide cash for retirement of serial bonds which had been issued some years previously, was recorded by a debt service fund. An estimate of \$1,000 for uncollectible taxes was recorded simultaneously.
(4) A \$500,000 issue of serial bonds was sold for \$512,500. The premium was transferred to a debt service fund where it was designated for payment on principal of the issue. Total interest payments over the life of the issue were calculated at \$297,800.
(5) A summary of debt service funds operations during the year showed additions of \$120,300 for liquidation of principal and \$18,990 to be applied on interest. The effect of these increases had not been recorded in the general long-term debt and interest group.
(6) \$250,000 par value of general obligation serial bonds were issued in partial refunding of a \$300,000 par value issue of term bonds. The difference was settled with \$42,500 which had been accumulated in prior years in a debt service fund, and the balance by a general fund disbursement from cash which had not been segregated. Future interest payments on the term bonds was \$17,000, none of which had been accumulated at the refinancing date. Estimated interest requirements on the new issue totaled \$88,200.

2. During 1969 the transactions stated below were performed by the city of Plymouth. All affected its general long-term debt and interest status. You are required to make entries in general journal form to show the effects of the transactions on the debt and interest group. Omit explanations, but number each entry to agree with the transaction. As used for some transactions of this problem, Interest Payable in Future Years will mean Interest Payable in the Future.

(1) A \$150,000 issue of five-year notes payable was sold on March 1. The rate of interest was 5 percent, payable March 1 and September 1.
(2) \$300,000 par value of serial bonds were issued on October 1. \$60,000 par value of the issue was scheduled to mature each year beginning October 1, 1970. Interest at 4 percent per year on the issue is payable semiannually on April 1 and October 1. Identify as 4 percent serial bonds payable (1974).
(3) \$100,000 par value of term bonds were sold at 102, and the premium was transferred to a debt service fund and designated for use in paying interest on the bonds. The date of issue was May 1, with retirement on May 1, 1989. The rate of interest was 5 percent per year, payable November 1 and May 1.
(4) \$500,000 par value $4\frac{1}{2}$ percent term bonds, scheduled to mature on February 1, 1979, were retired as of February 1, this year, after interest due on this date had been paid by the general fund. The retirement was accomplished with a cash payment of \$200,000 from a debt service fund and the issue of \$300,000 of 4 percent refunding bonds to mature on February 1, 1984, interest payable August 1 and February 1. Identify as 4 percent refunding bonds payable (1984).
(5) The city annexed territory which included a village with \$80,000 par value of 5 percent serial bonds still outstanding. Assumption of the debt occurred on September 15. \$10,000 of the issue was scheduled to mature January 1, 1970, with \$10,000 additional maturing each six months thereafter. The village had no accumulation of money for payment of principal or interest. Interest dates are January 1 and July 1.
(6) Records of the city treasurer showed gross additions of \$63,000 to debt service funds during 1969, of which \$9,000 was for principal and the remainder for interest. This total included the amount listed in transaction 3.
(7) Interest on all general long-term debt referred to in transactions 1–5, inclusive, was paid when due in 1969. Debt service accumulated funds were provided for the three issues referred to in transactions 3 and 4.

3. At December 31, 1968, the general long-term debt and interest group of the city of Plymouth (Problem 2) had the following trial balance:

CITY OF PLYMOUTH

General Long-Term Debt and Interest Group
Trial Balance, December 31, 1968

	Debit	*Credit*
Amount provided for retirement of bonds and notes	$ 263,100	
Amount to be provided for retirement of bonds and notes	881,900	
Amount provided for payment of interest	54,200	
Amount to be provided for payment of interest	191,800	
4½ percent term bonds payable		$ 500,000
Sinking fund bonds payable		200,000
4 percent serial bonds payable		120,000
4 percent refunding bonds payable		250,000
Deficit funding notes payable		75,000
Interest payable in future years		246,000
	$1,391,000	$1,391,000

You are required to do the following things:

a) Establish T accounts containing the balances of general long-term debt and interest items as revealed by the preceding trial balance.
b) Post to them, and any required new accounts, the entries for Problem 2.
c) Foot the T accounts, find their balances, and prepare a statement of general long-term debt and interest for December 31, 1969.

4. During 1969 the town of Munster engaged in a number of transactions which affected general long-term debt and interest accounts, in addition to accounts of the transacting funds. For each transaction you are required to make an appropriate entry or entries in the transacting fund or funds, unless otherwise specified, and in the long-term debt and interest group. Routine interest payments during the year and year-end adjustments are to be omitted. Explanations are not required for journal entries but transaction numbers should be shown for all entries. Record debt and interest group entries in one column and related fund entries in a parallel column. Do not voucher cash disbursements. Show fund to which each related entry pertains. Ignore encumbrances for general fund expenditures.

(1) A debt service fund recorded an expenditure and liability for $50,000 of 5 percent serial bonds maturing during the year. No assets had been segregated.
(2) $30,000 par value of 4 percent term bonds with five more years to run were called during the year at 104. Par value, premium, and six months' interest were recorded as debt service fund expenditures and liabilities (credit Matured Bonds Payable, Premium Payable on Bonds, and Accrued Bond Interest.) No assets had been segregated for any part of this transaction.
(3) For a debt service fund operating according to an accumulation schedule, the required addition during 1969 was $65,240 and required earnings were $42,900. The required addition was received from a revenue fund, and the debt service fund collected $44,513 cash earnings on investments. Amortization of discount and premium on investments amounted to $333 and $470, respectively. (For the debt service fund

make only the closing entries for the foregoing information and omit the revenue fund entry.) All accumulations were for retirement of principal.

(4) An $800,000 issue of 3½ percent serial bonds was sold at 103 during the year. The capital projects fund which sold the bonds transferred the premium to a debt service fund, which credited it to Revenues. Beginning two years after date of issue, the bonds mature in the amount of $200,000 biennially. The premium is to be used for debt retirement.

(5) A $300,000 issue of 5 percent term bonds was recorded in a debt service fund, which had been operated to accumulate assets for retirement of the debt.

(6) A capital projects fund sold $400,000 par value of 10-year, 4½ percent term bonds for 99 and accrued interest of $3,000. The accrued interest sum was transferred to a debt service fund, which will provide principal and interest service on the obligation.

(7) The general fund having accumulated a deficit of $98,709, it was decided to fund the deficit by issuing $100,000 of 4½ percent serial bonds, to be retired in 10 equal annual installments beginning on the first anniversary of the issue. The sale was accounted for through a debt service fund which immediately transferred all cash from sale of the bonds, at par, to the general fund. (Theoretically, this transaction is not a proper function of a debt service fund. The deficit is being *funded* here, not refunded.)

5. The town of Center Point is located in a state having a constitutional debt limit of 3 percent of gross *assessed* value of real estate and tangible personal property situated within the jurisdiction of any governmental unit. Below is given a collection of information about the imaginary municipality. Some is pertinent to debt limitation, some is not. You are required to select the pertinent information and, from it, prepare a statement of legal debt margin for the effective date of the information given, December 31, 1969. Recognize debt which is authorized although unissued.

(1) In a brochure about tourist attractions in the community, it was asserted that the value of all wealth in the town doubtless exceeded $2 billion.

(2) In the calendar year 1969, the town paid $205,000 interest on long-term indebtedness.

(3) There is a statewide *tax rate* limit of 2 percent.

(4) Mortgage, veterans', and other exemptions applicable to the assessed value of real estate and tangible personal property as of December 31, 1969, totaled $20,010,000.

(5) Assessed value of real estate and tangible personal property in Center Point was $261,350,000.

(6) Various federal, state, and local governmental agencies; religious, eleemosynary, and veterans' organizations; and educational institutions owned property, not included on the tax records, of which the estimated value was $394,881,000.

(7) Outstanding indebtedness at December 31, 1969 consisted of:

Disaster relief bonds of 1968	$ 730,000
General special assessment bonds	580,000
Vouchers payable for goods and services, all funds	283,161
4 percent serial bonds, $60,000 maturing annually, beginning July 1, 1970	600,000
Sinking fund bonds	150,000
Electric utility revenue bonds	690,000
Industrial development bonds of 1969 (outstanding)	2,500,000

(8) $500,000 unissued industrial development bonds were in the treasury.

(9) $90,000 was accumulated, in various funds, for long-term debt retirement.

(10) The electric utility bonds do not contain a full faith and credit guaranty.

In determining items to be included in the statement of debt margin, follow general principles governing such a statement. The long-term debt outstanding may be detailed in the statement; or scheduled, with a total amount in the statement.

6. In preparation for an ambitious program of public improvements, the city council and administration, city of Jackson, took steps to formalize the records of the municipality's debt position. An accountant employed to investigate and to organize his findings produced the following listing of long-term indebtedness projected to December 31, 1969:

   Deficit funding notes, $300,000.
   Municipal auditorium bonds, $4,000,000.
   Electric plant bonds, $250,000.
   Refunding bonds, $300,000.
   Special assessment bonds, $200,000.
   Street improvement bonds, $250,000.
   Water works bonds, $100,000.
   Golf course clubhouse bonds, $50,000.

   Other information obtained by the accountant included the following items:

   (1) Assessed valuation of real and tangible personal property in the city totaled $62,050,000.
   (2) The rate of debt limitation applicable to the City of Jackson was 8 percent of total real and tangible personal property valuation.
   (3) No general liability existed in connection with the special assessment bonds.
   (4) Electric plant, water works, and golf clubhouse bonds were of the revenue variety. No general public liability attached to the first and last, but the second carried a full faith and credit contingency provision and by law was subject to debt limitation.
   (5) The amount of assets expected to be segregated for debt retirement at December 31, 1969 was $130,000.
   (6) None of the above items would be reduced within less than six months.

   You are required to prepare a statement of legal debt margin for the city of Jackson, as of December 31, 1969. List all long-term debt as outstanding indebtedness.

7. In his initial engagement with the town of Lanesville, an auditor chose to prepare a statement of changes in general bonded debt and notes payable for the year ended December 31, 1969. There was no organized record of such indebtedness at the beginning of the year. The following information was discovered:

   (1) At the end of 1969, $50,000 was still outstanding on an issue of 3 percent serial bonds which had been issued in 1962, to mature at the rate of $25,000 per year.
   (2) During 1969 the town paid $20,000 interest on an issue of 4 percent 20-year term bonds issued in 1952.
   (3) The general fund having carried a deficit for the past few years, it was decided to fund the deficit with an issue of four-year notes totaling $120,000, to be retired at the rate of $30,000 per year. The deficit funding notes were to be paid through the medium of a debt retirement fund. They were issued on July 1, 1969.
   (4) At the end of 1969, $100,000 par value of special assessment, full faith and credit bonds were outstanding, from an original amount of $300,000. Annual maturities of $25,000 had been paid on schedule.

(5) Upon maturity of $400,000 of sinking fund bonds scheduled to mature in 1962, only $100,000 of assets was available for their retirement. Interest on the issue having been paid regularly, it was possible to refund the unpaid balance without difficulty, for which purpose an issue of 4¾ percent serial bonds was floated. The refunding issue matured at the rate of $30,000 per year. The first payment was made in 1963.
(6) In 1954 the municipality issued $500,000 of 4 percent serial bonds to finance a revenue-producing recreation facility. A series of 10 payments of $25,000 each was scheduled to begin in 1958. Following payment of $250,000, the balance was to be retired at the rate of $50,000 per year. Although primarily revenue in source of payment, the bonds were full faith and credit instruments.
(7) During 1969, a $300,000 issue of 4½ percent term bonds matured, with little provision having been made for their payment. The bonds were closely held, and arrangements were made with holders of all but $25,000 to accept 4½ percent refunding serial bonds. Cash was paid to creditors who declined to accept refunding bonds.

You are required to analyze the above information and prepare a statement of changes in general bonded debt and notes payable for Lanesville for 1969. It is to be assumed that all provisions for payment have been complied with.

8. From the annual reports of the city of Greenville, an accountant computed the following statistics of population, property assessments, and indebtedness at June 30 of three consecutive years:

Year	*Estimated Population*	*Assessed Value of Property*	*Gross Bonded Debt*	*Special Assessment Bonds*	*Utility Bonds*	*Amount in Retirement Funds*
1967	104,620	$199,660,000	$26,807,000	$2,318,000	$7,688,000	$ 986,000
1968	112,990	221,368,000	31,555,000	1,904,000	6,932,000	1,203,000
1969	120,830	230,079,000	38,001,000	2,532,000	6,117,000	829,000

None of the special assessment or utility bonds are "full faith and credit" debts. You are required to do the following things:

a) Under some simple heading such as "Schedule of Deductions: June 30, 1967, 1968, and 1969," prepare a summary of deductions from gross bonded debt for each date indicated.
b) Using the above information and your schedule, prepare a statement in good form to show the ratio of net bonded debt to assessed value of property and the average of net bonded debt per capita. Compute the former to tenths of a percent, and the latter to cents.
c) State what, if any, economic weakness exists in the net bonded debt per capita concept.

9. At April 30, 1969, all property inside the limits of Oakland City was situated within five governmental units, each authorized to incur long-term debt. At that date, net long-term debt of the five was as follows:

Fairfield County	$ 496,200
Blue River Township	62,800
Oakland City—civil city	5,988,700
Oakland City—school district	3,009,500
Oakland City—general hospital	299,100

The last three have common territorial limits.

Assessed values of property at the same date were: county, $280,400,000;

township, $154,220,000; city, $98,140,000. You are required to do the following things:

a) Prepare a statement of direct and overlapping debt for Oakland City.

b) Compute the actual ratio (in percent, carried to tenths) of total debt applicable to Oakland City property to assessed value of property within the city limits.

c) Compute the share of the city's direct and overlapping debt which pertained to the Reliable Manufacturing Company, having an assessed valuation of $4,907,000 at April 30, 1969.

10. Your examination of the financial statements of the town of Ecalpon for the year ended June 30, 1969 disclosed that the town's inexperienced bookkeeper was uninformed regarding governmental accounting and recorded all transactions in the general fund. The following general fund trial balance was prepared by the bookkeeper:

TOWN OF ECALPON

General Fund Trial Balance
June 30, 1969

Cash	$ 12,900	
Accounts receivable	1,200	
Taxes receivable, current year	8,000	
Tax anticipation notes payable		$ 15,000
Appropriations		350,000
Expenditures	344,000	
Estimated revenues	290,000	
Revenues		320,000
Town property	16,100	
Bonds payable	36,000	
Fund balance		23,200
	$708,200	$708,200

Your audit disclosed the following:

(1) The accounts receivable balance was due from the town's water utility for the sale of scrap iron. Accounts for the municipal water utility operated by the town are maintained in a separate fund.

(2) The total tax levy for the year was $280,000, of which $10,000 was abated during the year. The town's tax collection experience in recent years indicates an average loss of 5 percent of the net tax levy for uncollectible taxes.

(3) On June 30, 1969 the town retired at face value 4 percent general obligation serial bonds totaling $30,000. The bonds were issued on July 1, 1967 in the total amount of $150,000. Interest paid during the year was also recorded in the Bonds Payable account.

(4) At the beginning of the year, to service various departments, the Town Council authorized a supply room with an inventory not to exceed $10,000. During the year supplies totaling $12,300 were purchased and charged to Expenditures. The physical inventory taken at June 30 disclosed that supplies totaling $8,400 were used.

(5) Expenditures for 1969 included $2,600 applicable to purchase orders issued in the prior year. Outstanding purchase orders at June 30, 1969, not recorded in the accounts, amounted to $4,100.

(6) The amount of $8,200, due from the state for the town's share of state gasoline taxes, was not recorded in the accounts.

(7) Equipment costing $7,500 was removed from service and sold for $900 during the year and new equipment costing $17,000 purchased. These transactions were recorded in the Town Property account.

You are required to:

a) Prepare the formal adjusting and closing journal entries for the general fund.

b) Prepare the formal adjusting journal entries for any other funds or groups of accounts. (The bookkeeper had recorded all transactions in the general fund.)

(AICPA, adapted)

CONTINUOUS PROBLEM

14–L. As of the beginning of the current year, the city of Bingham had the following bond issues outstanding:

Description of Issue (All bonds are dated July 1 of the year of issue.)	*No. of Yrs. to Final Maturity*	*Face Amt. Outstanding at Beginning of Yr.*	*Amt. Provided for Retirement of Issue*
5% General obligation, 40-year term. No sinking fund	1	$200,000	$ 50,000
4½% General obligation, 40-year term. No sinking fund	3	200,000	40,000
4½% Special Assessment, 20-year serial	5	100,000	None
4% General obligation, 20-year Sinking fund	10	600,000	260,380
3½% General obligation, 25-year term. No sinking fund	15	500,000	None
3¼% General obligation, 20-year term. No sinking fund	15	500,000	None

You are required to:

a) Open a general journal for the general long-term debt group of accounts.

(1) Enter the above information in the general journal in conformance with National Committee on Governmental Accounting recommendations.

(2) Enter pertinent transactions from Problems 1–L through 12–L. You need not refer to 13–L.

b) In order to provide for the retirement of bond issues with early maturities or high interest rates, the City of Bingham plans on an issue of 20-year, 3½ percent general obligation bonds. Before determining the amount of the issue, the controller asks you to compute the legal general obligation debt margin of the city. The general obligation debt limit of a municipality in this state is 7 percent of the assessed value of property located within a governmental unit's geographical boundaries. The basis for assessment is fixed by law as one third of the "true cash value" of real and personal property. Some assessors attempt to adhere to the law; others ignore it.

A noted macroeconomist, R. C. Burner, computed the "gross Bingham product" as $800,000,000. The "true cash value" of the real and personal property within the city limits of Bingham, as of the last assessment date, was estimated to be $400,000,000 by the local newspaper editor, who maintains that everybody (except the newspaper) must have been underassessed, because the total assessed valuation of real and personal property on that date amounted to only $120,000,000.

c) Prepare a statement of general long-term debt as of the end of the year.

Chapter 15

Special Features of Property Tax Accounting

A property tax, as the term is commonly employed, is an ad valorem tax on tangible or intangible property. The theoretical basis for valuation of property subject to such a tax is estimated cash value or some percentage thereof. For some kinds of property subject to fairly precise classification, there may be schedules of values. As an example of the latter method, automobiles and trucks may be classified by make, model, and year of manufacture, and a standard value assigned by a state tax authority to units in each class. Ad valorem taxes are largely devices of local units of government, most of which use them to supplement revenue received from other sources. Many state governments have abandoned property taxes, and at least one which retains this form apparently does so as a token of its legal right to employ such a tax, judging from the low rate (one cent per $100) of its long-time annual levy.

For purposes of taxation, property is frequently divided into four different classes, as follows:

1. Real estate, including land and buildings, except that owned by privately owned utilities.
2. Tangible personal property, including household goods, automobiles, machinery, equipment, inventories, livestock, etc., except such items as are owned by privately owned utilities.
3. Intangible property such as securities, notes and accounts receivable, bank deposits, etc.
4. Property of privately owned utilities.

From an accounting standpoint, classification of taxable property is significant for three reasons:

1. The mechanics of inventory and valuation—that is, assessment—of property may vary according to its classification.
2. The rate of taxation may vary according to the class of property represented, for example, tangible or intangible.
3. The methods of levying and collecting taxes are likely to vary with the classification of property.

Although classification, assessment, fixing of rates, spreading (recording) the levy, and collection of taxes seem to be outside the field of accounting, governmental accountants should possess a clear understanding of the basic procedures underlying the budgeting, collection, and expenditures of taxes for which they must do the accounting.

Assessment of property

Methods to be used in the assessment of taxable property tend to vary with the class of property. Using practices followed in one midwestern state as examples, the following methods may be cited:

1. Land and buildings not owned by utilities. A general reassessment is conducted not oftener than every four years, upon petition of property owners in townships or counties or upon order of the state board of tax commissioners or the state general assembly. Reassessment is conducted more or less by schedule and formula, presumably based on actual cash value. Improvements added or removed between general assessments are reported to and recorded by local assessors. Land and building assessment values are filed in the county auditor's office.

2. Tangible personal property of most kinds is assessed annually. Household goods are exempt from taxation and mobile homes are assessed according to a special plan. Assessment of tangible personal property previously was supposed to be based upon actual physical count and valuation by township assessors, supervised by a county assessor. Recently the system has been modified to provide that individual taxpayers shall report their taxable tangible property on forms prescribed by a state agency. In its initial stages this procedure has been supplemented to some extent, by personal help rendered by township assessors. Assessment sheets originated by property owners are systematically arranged and filed in the county assessor's office, where they are open to public inspection. The valuation of tangible personal property for taxation is legally supposed to be one third of actual cash value. At best the taxable value arrived at is far from scientific, affected both by the difficulty of ascertaining cash value without actual sale and the degree of care and honesty exercised by the property owner in preparing his return. To a considerable extent the procedure described is self-assessment.

3. Taxation of intangible personal property is based upon self-assessment by the property owner. On a form prescribed by a state agency, the property owner lists his taxable intangibles and shows their value at the end of the year for which taxes are payable. The total value arrived at is subject to taxation at the rate of five cents for each $20 of valuation, or portion thereof. The nominal rate of taxation, 0.25 percent of value, has been made low as an inducement for owners of intangibles to report a form of property which is rather easily concealed. Originally the tax was collected by county treasurers by the sale of intangibles tax stamps and remitted to the state treasurer, after which a considerable portion was returned to units of local government. With the advent of direct collection by the state, only minor amounts are returned to the local units.

4. Property of privately owned utilities is assessed by the state board of

tax commissioners. The state board reports to each county assessor the final valuations for utilities in his county.

For taxation of real estate and most tangible personal property, the focal date is March 1 of each year. Whoever owns those classes of property on that day is the owner of record for tax purposes. Incidence of taxes on intangibles and at least one kind of tangible property (mobile homes) is based upon detailed provisions of special laws applying to them. Property taxes, except in the special cases mentioned above, which become a liability in one calendar year are payable in the next one. It should be borne in mind that this discussion of property assessment relates to one state only.

Estimating property tax requirements

As indicated above, property taxes for many units of local government are residual sources of revenue. This means that total requirements for a governmental unit are ascertained; from this is deducted the total of financial assistance expected from other sources; and the remainder is the amount that must be derived from property taxes. Thus, it may be that a governmental unit, on the basis of an estimated balance sheet for the end of the present fiscal period, expects to have net unappropriated assets which will be carried over for use in meeting the next year's requirements. In addition, it may anticipate receiving revenue from licenses and permits, fines, forfeits and penalties, and revenue from other agencies. The amount to be raised from property taxes, then, will be the excess of total requirements (as evidenced by the approved expenditures budget) over the sum of the estimated carry-over and the nontax revenues for the year. Reduced to summary form, the relationship is as follows, using assumed figures:

Total estimated requirements for year, as shown by approved budget		$120,000
Less: Fund balance, end of preceding year	$12,000	
Revenue from sources other than property taxes	46,000	58,000
Amount to be raised by property taxes		$ 62,000

The amount to be shown as the expected fund balance at the end of the preceding year is definitely an approximation. Since budgets are usually made several months before the beginning of the year to which they apply, it is necessary to project the present year's operations to the end of the year as follows:

1. Assume that a budget for 1970 is being prepared as of July 31, 1969.
2. The actual fund balance at July 31 will be ascertained.
3. To the actual balance at July 31 will be added the expected revenue for the remaining five months; and from this sum, expected expenditures will be deducted.

4. The figure resulting from item 3 will be the expected fund balance at December 31, 1969.

A better form of summary statement containing this and other pertinent information is shown in Illustration 15–1.

Among local governmental units, which operate to a considerable extent on property taxes, a special financing problem arises from the fact that tax revenues for a given year, collected in semiannual installments, may not be available for some months after the year has begun. As an example, in one state the first and second installments of property taxes are not required to be paid until the first Monday in May and November, respectively. All property taxes are collected by the county treasurer; and on account of details involved in distribution, the proceeds do not actually become available to other funds and units for disbursement until June and December, respectively. Since the costs of government tend to accrue more or less evenly by months, it is apparent that the lag in distributing tax money creates a financing problem. One or both of two methods are utilized to finance operating costs pending the receipt of property tax distributions, as follows:

1. Short-term borrowing, ordinarily in the form of tax anticipation loans.
2. Inclusion in the requirements for a given year of a "working balance" to be carried into the next year. The maximum amount of working balance which can be provided for in a budget may be regulated by law or ordinance, as, for example, a specified percentage of estimated costs during the first six months of the following year. A working balance does not require a formal appropriation but only a tax levy high enough to provide an unappropriated balance of the desired size. The intended purpose of a working balance is to prevent a shortage of cash in the early part of the following year, rather than to increase authorizations to spend.

Of the two methods described, the latter appears to be more economical, since borrowing entails interest charges. Actually, working balances have frequently been abused by utilizing them as bases for additional appropriations. Having been provided with an adequate working balance for the early months of a subsequent period, public officials sometimes request additional appropriations for purposes represented to be highly important. Often, these additional appropriations have been financed from the intended working balance. The entry to record such an additional appropriation is as follows:

Fund Balance	1,000	
Appropriations		1,000

To demonstrate the method of determining how much revenue must be supplied by property taxes, the following assumed information is given and then formalized in Illustration 15–1.

Budget and tax collection year	1970
Nominal date of preparing budget and estimate of taxes	July 31, 1969
Actual balance in fund at July 31, 1969	218,000
Expected amount of taxes to be received in December, 1969, settlement	311,000
Other receipts expected in the period August 1–December 31, 1969	52,000
Estimated total expenditures for the period August 1–December 31, 1969	401,000
Total budget requirements for year 1970	822,000
Necessary working balance for beginning of 1971	173,000
Receipts expected from sources other than property taxes (1970)	136,000

The calculation in Illustration 15–1 has been simplified as compared with requirements in actual practice, where all amounts must be substantiated by reference to schedules or other sources of information.

Illustration 15–1

CITY OF VANDALIA

General Fund
Statement of Amount to Be Raised by Property Taxes for 1970
July 31, 1969

Requirements:		
Estimated expenditures, balance of 1969		$ 401,000
Proposed appropriation for 1970		822,000
Estimated working balance required for beginning of 1971		173,000
Estimated total requirements		$1,396,000
Resources other than tax levy for 1970:		
Actual balance, July 31, 1969	$218,000	
Amount to be received from second installment of 1969 taxes	311,000	
Miscellaneous receipts expected during balance of 1969	52,000	
Revenue expected from sources other than property taxes during 1970	136,000	
Estimated total resources other than tax levy		717,000
Estimated amount required from property taxes in 1970		$ 679,000

While the actual calculation of a required tax levy is likely to be more complicated than indicated above, Illustration 15–1 demonstrates all the fundamentals of such an operation.

Determination of tax rates

The determination of a tax rate is principally a process of dividing requirements by net assessed valuation. A method for calculating the amount required to be raised by property taxes was described in the preceding section; and property valuations, as well, have already been discussed. However, *net* assessed valuation for tax purposes is likely to be less than the total assessed valuation, which, it should be pointed out, does not even include governmentally owned property; property owned and used exclusively for occupancy by religious, charitable, and fraternal organizations; and various other similar *classes*, all specifically excluded by

law.[1] The difference between total assessed valuation and net assessed valuation arises from individual exemptions provided by law and ordinarily granted upon the basis of annual applications filed by the property owners. Among the forms of individual exemptions are the following:

1. *Homestead exemptions.* Under this form of relief a home owner is granted an exemption of a given amount which is applied against the assessed valuation of his home, the excess of the latter over the former being the net assessed valuation subject to taxes.
2. *Mortgage exemptions.* This form of exemption is intended to give some tax relief to property owners paying interest on indebtedness against the property being taxed. In one state with a mortgage exemption law, a given owner of real estate is entitled to one mortgage exemption of $1,000, or one half the assessed valuation of the property, whichever is less. Although applicable to all kinds of real estate, the exemption was intended to provide a limited measure of homestead relief.
3. *Military service exemptions.* The terms of this form of exemption are variable. The factors determining eligibility and the amount of relief available may be the period of service, the degree of disability, and the nature of the property owned.
4. *Blind person exemptions.* The nature of this form of exemption is manifest from the title, but legal eligibility of a given person may depend upon the nature of the property owned and the general economic status of the individual.
5. *Exemption based on age and economic status.* This form of exemption is based upon the relationship of three variables: age, assessed value of taxable property owned, and annual income as defined by the applicable law.

All the above forms of exemption are of vital concern to the chief accounting officer because of their direct bearing upon details of the property tax levy, the application of which to individual properties and taxpayers is distinctly an accounting function. An idea of the amount of detail involved in crediting individual properties and taxpayers with exemptions to which they are entitled may be gained from the following summary of tangible property valuations and exemptions in one county for a recent year:

Total property subject to taxes		$121,230,110*
Exemptions:		
Mortgage	$6,979,360	
Veterans	1,054,700	
Old age	711,415	
Religious, charitable, etc., organizations	3,826,750	
Total exemptions		12,572,225
Net Assessed Valuation		$108,657,885

* This figure excludes possibly $200,000,000 or more of property serviced by the county, city, and township governments. This is mostly state owned property but includes property owned by the federal government, labor unions, lodges, veterans' organizations, fraternities, sororities, local schools, etc.

[1] Governing bodies of excluded property may be required to file reports substantiating claims for exclusion.

Tax rates are likely to be determined some months after the legal assessment date for properties to which the rates will be applied. Thus, the legal assessment date may be March 1, with budgets approved in September or October. In the meantime, property owners will have filed applications for exemption, and the net assessed valuation of properties will have been definitely ascertained and the total requirements from property taxes established. The tax rate, then, is calculated in the following manner:

$$\text{Property Tax Requirements} \div \text{Net Assessed Valuation} = \text{Tax Rate}$$

If the tax rate is calculated in terms of cents or in terms of dollars and cents per hundred dollars of valuation, it is likely to be rounded to the nearest even cent. To illustrate, if the rate calculated is \$0.737 per hundred, it is likely to be rounded to \$0.73 or \$0.74. The advantage of this practice lies in the fact that the tax rate must be applied to a great many individual valuations, and shortening the rate by one digit effects a material saving of time. It is clear that rounding to a higher figure would yield more revenue than the amount estimated as necessary, whereas rounding to the lower figure might bring appreciably less than called for in the estimate of taxes to be raised. If the lower rate is adopted, what item or items in the budget would be reduced? Probably none, because the working balance, being a more or less flexible figure, could be made to absorb the reduction with little or no disturbance. This is not an invariable rule but merely suggests a timesaving possibility.

As an example of how the tax-rate formula is applied, let it be assumed that the assessed valuation of taxable property is \$52,000,000, with individual exemptions of \$870,000, and that the amount to be raised by property taxes is \$617,000. The tax rate would be calculated in the following manner:

$$\text{Tax rate} = \frac{\$617{,}000}{(\$52{,}000{,}000 - \$870{,}000)} = 0.012067$$

For publication to taxpayers, the resulting decimal may be converted to either a rate per dollar or a rate per hundred dollars. Converting to a per hundred dollars basis would produce a rate of \$1.2067. On a per dollar basis the rate would be \$0.012067. Economy of time would be effected by rounding the former rate to \$1.21 and the latter to \$0.0121. In this connection, it may be stated that property assessments are ordinarily made in units not smaller than \$5; that is, all valuations are multiples of \$5. This device, like the rounding of tax rates, simplifies the computation of amounts to be charged to individual property owners.

Publication of tax rates

Since a given article or piece of property may be situated within the territorial limits of two or more governmental units having authority to

levy taxes, it is apparent that the total tax rate for a given property valuation is likely to be a composite rate. For example, the composite rate may consist of state, county, township, and municipal levies; and these, in turn, may include rates for two or more funds in each classification. In order that taxpayers may have advance information about the probable amount of their taxes for a given year and may know to what extent the various governmental units and funds are responsible for their taxes, the law may require the publication of detailed schedules of tax rates. A schedule of this kind is shown in Illustration 15–2. In that illustration the townships, cities, and towns are the taxing districts and the composite rate for each is shown on the Net Tax Rate line.

Preparation of tax rolls

In whatever physical form it may exist, a tax roll is a subsidiary ledger in special form which records the amount of taxes owed by each property owner within each tax-levying district. A convenient arrangement is to maintain a tax roll for each district, since rates are likely to vary from one district to another. The effect of this arrangement is that a given taxpayer will have an account on the tax roll of each district in which he owns taxable property.

In general, the procedure described below is followed in preparing the tax roll or subsidiary ledger for each district:

1. The valuation of property owned by a given taxpayer is ascertained. For real property, this information is obtained from the permanent public record of real property (in one state referred to as a "Transfer Book"). One exception is property of privately owned utilities, for which valuations may be certified by some state regulatory commission. Personal property valuations, being on an annual basis, are obtained from assessing officials.

2. The amounts of any exemptions to which the taxpayer is entitled are ascertained and deducted from the gross valuation of the property to which they apply, to give the net value subject to taxes. As indicated previously, most individual exemptions apply to real property, but some apply to chattels as well.

3. The district tax rate is applied to the net assessed valuation, and the product is the amount owed by the taxpayer for the year in question. Since valuations for real and personal property come from different sources, computations for each of the two classes of property may be made in separate runs. If the tax ledger is actually a roll, rather than individual cards or sheets for each taxpayer, such a procedure virtually establishes separate ledgers for real and personal property in each district. Thus, real property taxes of taxpayer A will be recorded in one section, whereas those on his personal property will be found in another. With regard to taxes on real estate, it should be pointed out that the roll or other form of ledger will probably show not only the amount due but also the following additional facts as well:

a) Brief legal description of each parcel of land owned.

b) Valuation of each parcel.

Illustration 15–2

NOTICE TO TAXPAYERS OF MONROE COUNTY OF TAX RATES CHARGED

Notice is hereby given that the Tax Duplicate for the several taxing units in Monroe County for the year 1967 taxes payable in 1968 are now in the hands of the County Treasurer, who is ready to receive the taxes charged thereon.

The following table shows the total tax levied, less the tax rate adjustment based on the county's distributive share in the State Property Tax Relief Fund, and the net tax rate levied on each $100 worth of taxable real and personal property in each taxing unit. Due January 1, 1968. First installment delinquent after first Monday in May, 1968. Second installment delinquent after first Monday in November, 1968.

John W. Davis, *Monroe County Treasurer*

Tax Rates Charged for Year 1967 Payable in Year 1968	*Townships*											*Cities and Towns*				
	Bean Blossom	*Benton*	*Bloomington*	*Clear Creek*	*Indian Creek*	*Perry*	*Polk*	*Richland*	*Salt Creek*	*Van Buren*	*Washington*	*Bloomington Blgtn. Twp.*	*Bloomington-Perry Twp.*	*Ellettsville*	*Stinesville*	*Bloomington Van Buren Twp.*
Total State Rate	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
County General	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
Aviation bond fund	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
County welfare	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11
Courthouse annex bond	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
Cumulative courthouse	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
Cumulative bridge	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
Aviation fund	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015
County fair	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Total County	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48
Library	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25
Total Library	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25

Township	.18	.06	.02	.38	.31	.01	1.20	.03	.28	.06	.22	.02	.01	.03	.18	.06
Poor relief	.35	.12	.05	.02	.22	.02	.31	.02	.10	.01	.23	.05	.02	.02	.35	.01
Fire protection	.14	.14	.23			.19		.05		.10						
Civil township bond		.14						.05		.07				.05		.07
Total Township	.67	.46	.30	.40	.53	.22	1.51	.15	.38	.24	.45	.07	.03	.10	.53	.14
General fund (school)	4.33	4.72	4.50	3.22	4.73	4.50	3.40	4.33	3.16	3.50	3.93	4.50	4.50	4.33	4.33	4.50
Debt service fund	1.02	1.48	.38	.95		.38		1.02		.28	1.22	.38	.38	1.02	1.02	.38
Cumulative building		.40	.18	.80		.18						.18	.18			.18
Total School	5.35	6.60	5.06	4.97	4.73	5.06	3.40	5.35	3.16	3.78	5.15	5.06	5.06	5.35	5.35	5.06
Corporation												2.53	2.53	.82	2.60	2.53
Street														1.36		
Park and recreation												.33	.33	.09		.33
Cemetery												.02	.02			.02
Police pension												.105	.105			.105
Firemen's pension												.12	.12			.12
Corporation bond												.085	.085	.13		.085
Cumulative building and equipment														.10		
Fire protection															.30	
Total Corporation Rates												3.19	3.19	2.50	2.90	3.19
Total Tax Rate	7.76	8.80	7.10	7.11	7.00	7.02	6.65	7.24	5.28	5.76	7.34	10.06	10.02	9.69	10.52	10.13
Less state property tax relief	.23	.26	.21	.21	.21	.21	.20	.22	.16	.17	.22	.30	.30	.29	.31	.30
Net Tax Rate	7.53	8.54	6.89	6.90	6.79	6.81	6.45	7.02	5.12	5.59	7.12	9.76	9.72	9.40	10.21	9.83

STATE OF INDIANA, MONROE COUNTY, SS: I, Louise L. Goodman, Auditor of Monroe County, hereby certify that the above is a correct copy of all tax levies and rates of taxes collectible in the year 1968.

March 1–8–15 Signed Louise L. Goodman, *Auditor, Monroe County, Indiana*

c) Valuation of improvements, with an indication of their legal location.
d) Amount and nature of exemptions.

Inclusion of information concerning descriptions and valuations virtually constitutes a combined assessment and tax roll; however, the official record of assessments consists of those basic documents (transfer books and assessment sheets) from which the tax roll is compiled.

4. In order to provide a current record of all taxes standing unpaid against a specific piece or aggregate of property, unpaid taxes of prior years must be brought forward and entered with those for the current year. As will be indicated later, the transfer operation for prior years is greatly facilitated by the use of individual ledger cards or sheets instead of the continuous roll form of ledger.

Form of tax ledger

As indicated previously, tax ledgers are found in two general forms—the roll and the individual record. The roll form of record provides for listing the names of taxpayers alphabetically, with a description of the property, valuation, exemptions, amount of taxes, etc., shown in one group for each taxpayer. If taxes are payable in installments, the amount of each installment may be shown. Provision must be included, also, for showing delinquent taxes and for payments on both current and delinquent taxes. The mandatory tax roll form used in one state consists of 7 lettered columns and 15 numbered columns, a cumbersome arrangement. Another objection to the roll form of ledger is that it is on an annual basis, and amounts not paid at the end of a given year must be transferred to the next year's roll. Furthermore, the tax record of a given piece of real estate, often of vital importance in real estate transfers, can be traced only by reference to numerous books, some of which may not be easily accessible.

These objections are overcome in large measure with respect to real estate taxes by the use of an individual ledger sheet for each piece of real estate (Illustration 15–3). Under this plan, classification of accounts in the taxes receivable ledger is by pieces of property rather than by owners. One of the chief advantages claimed in favor of the tax ledger account plan is that it gives in convenient form a continuous tax record for each piece of property. This statement must be modified in part with respect to parcels of land which are divided in transfer, which requires the initiation of a new account for each part. Another point in favor of the individual ledger form is that it is adaptable to use for machine posting.

Recording the tax levy

The accounting procedure for recording a tax levy differs from its counterpart in the field of commercial accounting, that is, accounting for credit sales of goods or services. In commercial practice, it is common but not universal to summarize the transactions to be posted, either by the use of a sales journal or by some other form of recapitulation. From the summarized information, postings are then made to ledger accounts. In

Illustration 15–3

INDIVIDUAL TAX LEDGER FORM

COUNTY OF X

TAX LEDGER*

Property No. 6-729 Size 105 Acres

Description (fill in those applicable):

Range No. 1 E Township No. 6 Section No. 7 Corporation

Subdivision Block Lot No. Address Bloomington, Indiana

Year	Assessed to	Reference	Assessed Value				Taxes			Payment Record			
			Land	Improvements	Personal	Total	Rate	Amount	Bill No.	Date	Tax	Interest and Penalties	Adjusted or Canceled
1968	Cusle, John	S-729	$4,200	$11,920	$1,040	$17,160	$4.20	$720.72	965	4-11-68 10-7-68	$360.36 360.36		
1969	Rose, Chas. H.	S-691	4,200	11,920	960	17,080	4.80	819.84	886	5-1-69 12-3-69	409.92 409.92	$20.50	

* This form does not provide for showing exemptions in the ledger account.

accounting for the levy of property taxes, entries are made in the taxpayers' accounts, in one form or another, after which the total of all charges for current taxes serves as the basis for the general journal and general ledger entries to record the levy. This procedure is followed because the computation of the amount owed by a taxpayer is based upon the property valuation shown in his ledger account, which obviates the necessity of a preliminary entry. If the tax roll form of ledger is used, the amount to be debited to Taxes Receivable—Current is the grand total of a Total Amount of Current Taxes column. If the individual tax ledger form is used, the amount of current taxes charged to each taxpayer must be accumulated, mechanically or otherwise, for use in recording the total levy.

Although taxes are given the force of liens against the property to which they apply, some loss is unavoidable. Because of the movable nature of most personal property, a certain amount of loss is inevitable as a result of owners removing from the governmental unit's jurisdiction without payment of taxes standing against the property. Furthermore, public officials are usually reluctant to foreclose against household goods and other similar property, even if such a step is permitted by law. Even real estate sometimes cannot be disposed of for the amount of taxes, interest, and penalties accumulated at the date of foreclosure. For the above reasons, tax levies should recognize probable loss from uncollectible items. As in commercial accounting, probable loss on a given tax levy must be estimated largely on the basis of past experience, with due consideration to present business conditions and taxpayers' theoretical ability to pay. Assuming total taxes charged in the amount of $750,000, with an estimated rate of loss of 1 percent, the levy would be recorded in the following form:

Taxes Receivable—Current	750,000	
Estimated Uncollectible Taxes—Current		7,500
Revenues		742,500

If the governmental unit recognizes only one form of tax revenues, the credit of $742,500 would be posted to one account in the revenue subsidiary ledger. In the event that separate classes of tax revenue are recognized—as, for example, from real property and from personal property—the entry recording the levy would have to show the amount to be credited to each individual tax revenue account. In some jurisdictions, legal or other requirements specify that appropriations must be made for uncollectible taxes. The full amount of the levy is then credited to the Revenues account, and the Estimated Uncollectible Taxes account is omitted from the entry. Credits for taxes written off are offset by debits to Expenditures in such jurisdictions.

It is customary for both the tax roll and the individual tax ledger forms

to include columns for interest and penalties. Although interest and penalties are not part of the normal tax levy, they may be recorded periodically to avoid delay when the delinquent taxpayer appears to make settlement. If the law imposes a flat penalty for failure to pay taxes before a given date, the penalty may be charged immediately. As soon as feasible after the beginning of the penalty period, an extra charge should be added to the account of each taxpayer failing to pay before the penalty date. If the penalty rate is 2 percent, each of the delinquents should be charged with 2 percent of the amount that passed from the current to the delinquent classification. On each account the penalty will be added in the column provided. At the same time, charges may be made for interest on taxes previously declared delinquent and not yet paid. Total charges for penalties and interest would be recorded in the following manner, using assumed amounts:

Interest and Penalties Receivable	3,200	
Estimated Uncollectible Interest and Penalties		200
Revenues		3,000

In connection with this entry, it is important to note that the formal journal record should be supported by a detailed statement showing the years' taxes to which the interest and penalties apply, as well as the names of taxpayers being charged. This is necessary unless the charges are all for one fund, in order that the proceeds of any collections may be properly distributed to the units and funds having equities in the receivables.

It is apparent that a tax levy which has two or more participants cannot rightfully be credited in total to the Revenues account of the collecting unit. That part of the levy, over and above the probable loss on uncollectible items, which belongs to other funds or units must be accounted for as a liability rather than a revenue. If it is assumed that, of a total levy of $300,000, the amount of $5,000 will not be collected, and that $110,000 of the remaining $295,000 belongs to other funds, the following entry might be made:

Taxes Receivable—Current	300,000	
Estimated Uncollectible Taxes		5,000
Revenues		185,000
Due to Other Funds		110,000

If collections for other funds are required to be accounted for through the use of an agency fund, the credit of $110,000 could be changed to the Tax Agency Fund account.

Abatements

Sometimes, after tax levies have been recorded, it is discovered that one or more overcharges have been made. These may arise from errors in

If a single control is kept for all delinquent taxes, the breakdown by years will be shown in the explanation supporting the entry. This classification is ordinarily necessary because the composition of a tax rate tends to vary from year to year unless the levy is for a single fund. If the levy is confined to one governmental unit, the rates for its different funds are likely to be different from year to year as their requirements change. The greatest probability of annual variations exists in levies that encompass provision for two or more governmental units, as well as multiple funds for one or more units. Delinquent interest and penalties, as well as the levies themselves, must be accounted for by years.

Discounts on taxes

Some governmental units utilize a cash discount system to encourage early payment of property taxes. Although a small amount of revenue is lost from discounts taken, the practice minimizes the use of short-term borrowing or another alternative, carrying over a sizable retained earnings balance from the preceding period. If not prohibited by law, discounts are best accounted for as reductions of the amount of revenue to be derived from a given tax levy. Thus, if a tax levy totals $200,000 and the estimated discounts that will be taken amount to $1,800, the latter figure may be subtracted from the amount of the levy, along with the estimated loss from uncollectible taxes, to give the net estimated revenue. Assuming an estimated loss from uncollectible taxes of $3,100, the $200,000 levy, with discount provision, would be recorded as follows:

Taxes Receivable—Current	200,000	
Estimated Uncollectible Taxes—Current		3,100
Estimated Discounts on Taxes		1,800
Revenues—Property Taxes		195,100

Payment of taxes within the discount period requires a debit to the Estimated Discounts on Taxes account of the amount earned, in the following manner, using assumed amounts:

Cash	197	
Estimated Discounts on Taxes	3	
Taxes Receivable—Current		200

If discounts are taken in excess of the amount of allowance created, the excess will be debited to Revenues—Property Taxes. Any balance remaining in the allowance after the close of the discount period should be transferred to Revenues—Property Taxes by a credit to that account and a debit to the Estimated Discounts on Taxes account.

As a device for closer control against unwarranted granting of discounts, it may be required that discounts on taxes be covered by an

appropriation. Under this method the allowance for discounts is not established when the tax levy is recorded. Discounts granted are debited to Expenditures in the following manner, assuming an entry for one month's collection of taxes:

Cash	23,640	
Expenditures—Discount on Taxes	360	
Taxes Receivable—Current		24,000

Miscellaneous collections

As a protection against possible loss of property through inability to pay taxes, property owners sometimes desire to pay in advance of the levy, while they have the means to pay. If prepayments are allowed, the result is a deferred credit to income, since the taxpayer's account has not yet been charged. Assuming a prepayment of $100, the following entry may be made:

Cash	100	
Taxes Collected in Advance (or Prepaid Taxes)		100

Discounts are sometimes granted on prepayments, in which case the amount debited to Cash would be the amount of credit granted minus the discount earned. Assuming that the above transaction occurred in 1968, to apply on 1969 taxes, the payment would be earned when the 1969 levy becomes due. After the year's levy has been recorded, the following entry might be made in respect to the prepayment:

Taxes Collected in Advance (or Prepaid Taxes)	100	
Taxes Receivable—Current		100

This $100 of taxes would have been credited to Revenue—Taxes (or some similar title) when the tax levy for 1969 was recorded.

Because of the unique nature of tax prepayments, special care should be exercised to assure that proper credit is given in the taxpayers' accounts after these have been charged with the levy to which the prepayments apply.

A second form of miscellaneous collection has already been referred to in a previous chapter. This is collection of taxes that have been written off as uncollectible. Taxes on personal property account for the major portion of this item, since real estate is stationary and cannot be removed from the governmental unit's jurisdiction and is subject to seizure for unpaid taxes. It will be recalled from the previous reference that the entry for writing off taxes receivable as being uncollectible will depend upon whether provision for loss was made when the levy was recorded. If so,

the entry to write off taxes with related interest and penalties as uncollectible would be as follows:

Estimated Uncollectible Taxes	700	
Estimated Uncollectible Interest and Penalties	160	
Taxes Receivable—Delinquent		700
Interest and Penalties Receivable		160

For governmental units operating under a law or ordinance requiring appropriations for uncollectible taxes, interest, and penalties, the write-off would be recorded as follows:

Expenditures	860	
Taxes Receivable—Delinquent		700
Interest and Penalties Receivable		160

The argument in favor of charging write-offs to Expenditures holds that it serves better to call the attention of the legislative body to amounts written off, thus minimizing opportunities for fraudulent credits to taxpayers' accounts.

Elaborating upon what has been said in Chapter 3, the procedure followed in recording the collection of items written off is likely to be guided by dictates of convenience. Perhaps the easiest method in use for recording such collections is to describe the credit as miscellaneous revenue, as follows:

Cash	100	
Miscellaneous Revenue		100

Although convenient, this method is not supported by logic. By no stretch of the imagination can the receipt be construed as an earning for service given in the present period.

Some improvement over the above entry may be accomplished by substituting Fund Balance as the account credited; and in fact, it is the logical account to use if the receivables were charged off to Expenditures. However, if the write-off was debited to allowance accounts, crediting the collection to Fund Balance cannot easily be defended. It would be difficult to prove that the operations of writing off taxes and subsequently recording their collection have brought about an increase in assets available for appropriation and expenditure.

Perhaps the method best supported by logic consists of reversing the entry by which the receivables were written off, on the basis of correcting the entry that erroneously wrote off the receivables, followed by recording the collection in the routine manner. By this method, if \$160 is

collected to apply in the amount of $110 on taxes, $40 on interest and penalties receivable, and $10 on interest accrued since the receivables were written off, the following entries would be made:

Taxes Receivable—Delinquent	110	
Interest and Penalties Receivable	40	
Estimated Uncollectible Taxes		110
Estimated Uncollectible Interest and Penalties		40
To reverse entry by which taxes and interest and penalties receivable were written off.		

Cash	160	
Taxes Receivable—Delinquent		110
Interest and Penalties Receivable		40
Revenues		10
To record collection of taxes and interest and penalties written off, plus additional interest collected.		

It will be noted that the net effect of the above two entries is a debit to Cash, with credits to the Estimated Uncollectible accounts and to Revenues. Some accountants contend that all practical purposes would be served, with no violation of sound theory, by crediting the collection directly to those accounts, without the formality of restoring the charges to their respective receivables accounts and immediately closing them by credits. The entry for collection, using this form, would be as follows:

Cash	160	
Estimated Uncollectible Taxes		110
Estimated Uncollectible Interest and Penalties		40
Revenues		10

Regardless of the journal entry or entries used in recording the collection of receivables written off, the utmost care should be exercised to make sure that the taxpayer's individual record is cleared, to forestall future complications.

The third form of miscellaneous collection to be discussed here is overpayment of taxpayers' accounts, especially when payments are made by mail. If the location of the taxpayer making the excess payment is known, refunding the overpayment is a formality; the real problem arises from payments made by absentee owners who fail to give a return address. One state requires the maintenance of a surplus tax fund for overpayments of taxes and prescribes rigid rules to be used in accounting for overpayments. If it is assumed that an overpayment of $18 is made on a tax levy of $168, the following entry would record the transaction:

Cash	186	
Taxes Receivable—Current		168
Due to Surplus Tax Fund		18

The transfer of overpayments from the general fund to the trust fund would be made in the following manner:

General fund:

Due to Surplus Tax Fund	18	
Cash		18

Trust fund:

Cash	18	
Surplus Tax Fund Balance		18

Statutes of the state referred to above prescribe the method for refunding overpayments to those owners who can be identified. The entry is as follows, using an assumed amount:

Surplus Tax Fund Balance	380	
Cash		380

The laws of the same state impose a limitation of five years upon refunds, after which unclaimed amounts revert to the general fund. On the trust fund books the entry would take the same form as for a refund. On the general fund books the credit would be to some such account as Miscellaneous Revenue, if one is operated; and if not, the Fund Balance account might be employed for the credit member. As with tax transactions in general, it is imperative that records related to overpayments show infallibly the individual taxpayer concerned.

Distribution of tax proceeds

If a governmental unit which is authorized to levy and collect a property tax were so simple as to have only a general fund, there would be no problem of distributing tax proceeds. All amounts collected would be the property of that fund. Even though the collecting unit may have two or more funds, complications are not great if the collecting governmental unit acts only for itself and does not serve as agent for other units. The distribution to funds will be on the basis of the ratio of each fund's tax rate to the unit's total tax rate. To illustrate, let it be assumed that a municipality that levies and collects taxes had the following schedule of rates per $100 of taxable property for 1968 taxes, payable in 1969:

General fund	$0.95
School fund	1.10
Debt service fund	0.08
Hospital fund	0.11
Employees' retirement fund	0.10
Total Rate	$2.34

When the proceeds of the 1968 collections are ready for distribution to the various funds, each will share on a fractional basis, the numerator of the fraction being the fund tax rate and the denominator the total tax rate. From a total distribution of $240,000 the general fund would receive 95/234 times $240,000, or $97,435.90.

Some complexity is added if the collecting unit acts as agent for one or more governmental units, that is, if distribution must comply with a composite rate representing multiple units and multiple funds. Thus, let it be assumed that a city treasurer makes collections under a tax rate composed as shown in Illustration 15–4. In a distribution of $400,000 the city

Illustration 15–4

City Tax	
General fund	$0.95
School fund	1.10
Debt service fund	0.08
Hospital fund	0.11
Employees' retirement fund	0.10
Total city rate	$2.34
County Tax	
General fund	$1.16
Welfare fund	0.88
Highway fund	0.36
Total county rate	$2.40
Composite Rate	$4.74

would retain 234/474 for its own funds and transfer 240/474 to the county. The equity of each fund in the total distribution would be ascertained in the same manner.

Thus far, it has been assumed that distributions consist of only one year's levy. Actually, two or more years' levies are likely to be represented in each distribution, along with interest and penalties on delinquencies. This being true, collections must be clearly identified by years, as previously stated and illustrated; and the proceeds of each year's levy must be allocated on the basis of that year's rates.

The method of accounting for the distribution of tax proceeds depends upon how the levy was recorded. The simplest situation involving a distribution problem exists where each fund of the governmental unit records its own tax levy, with collections handled by a central treasurer's department. This means only that if the general fund, special revenue funds (if any), debt service funds, or any others are authorized to make direct levies of property taxes, each records its levy on its own books, with collections administered by a central office. Under this plan the central collecting office periodically (daily, weekly, monthly, etc.) ascertains the share of each fund in the collections and distributes them on the determined basis. To illustrate, if a governmental unit utilizes two funds

some advantage in formalizing the distribution by use of a journal entry, as done above. The method preferred in actual practice probably depends upon the number of participants, length of period between calculation of distribution and making of settlement, and possibly other attending circumstances. Receipt of collection remittances would be recorded by the participating fund and unit in the same manner as direct collections are recorded.

In recording the entry for the transfer of collections from the county tax agency fund to the other unit, it was assumed that no charges were made for the collecting service. To illustrate the effect of a service charge by the county, it will be assumed that a fee of 0.5 percent is charged by the county on all amounts collected for other units. On the tax agency fund books the following entry should be made:

Tax Agency Fund Balance	1,200	
Due to General Fund		1,200

Transfer of the amount from the agency fund will require a debit to Due to General Fund, with a credit to Cash. This entry and the preceding one should be combined with those recording distribution and settlement. For the county general fund entry, a credit to Revenues will be required. It should be noted that only $238,800 will pass from the tax agency fund to the other governmental unit, which will record the receipt in the following manner:

Cash	238,800	
Expenditures	1,200	
Taxes Receivable—Current		240,000

The foregoing entries summarize general procedures of tax levies and distribution. One fact should be emphasized: a vast amount of detail is ordinarily involved in making proper accounting when one fund or unit serves as collecting and distributing agent for other funds or units. Using controlling accounts for the several levies is indispensable for economy of time and for accuracy. Controls must show not only the amounts to be collected for the various funds and units, but the years to which they apply. The collecting agent should be able to correlate every cent of collections with the levy to which it applies.

Forced collection of taxes

Laws that authorize the levying of taxes on property must provide procedures for forcing collection in the event that the property owner is unwilling or unable to pay. The culmination of the forced collection process is offering the property for sale, under stipulations established by law. As stated elsewhere, forced collection procedures do not operate as

effectively for personal property taxes as for real property taxes. Personal property taxes not collected for any reason must be written off against the allowance for uncollectible taxes.

Laws under which tax-delinquent property can be offered for sale provide safeguards for the interest of the property owner. These include provision for extensive publicity of intention to sell, with liberal opportunity for redemption of the property after the public sale but before the transfer becomes absolute. The sale of property for delinquent taxes may occur at a time of year when even the present year's taxes have become delinquent, along with those of past years, or the present year's taxes may be wholly or partly current. Classification of all taxes against the property is important for giving proper credit to tax accounts and for making correct distribution of collection proceeds. Other charges against the property will be interest and penalties, some of which may have been recorded and some not. The cost of holding the sale will not be recovered through a special charge to the purchaser, but will be covered by the interest and penalties included in the total to be paid by the buyer. All interest and penalties to the date of sale should be recorded in the Interest Earned and Interest and Penalties Receivable accounts.

The first example of accounting for foreclosure will be based upon the assumption of sale to a third party, that is, a bid equal to or in excess of the total charges against the property. Assuming current taxes of $80, delinquent taxes of $190, and interest and penalty charges of $35, the sale of the property would be recorded as follows:

Cash	305	
Taxes Receivable—Current		80
Taxes Receivable—Delinquent		190
Interest and Penalties Receivable		35

The successful bidder in the above transaction would receive documentary evidence of the provisional title which he has acquired. This is commonly called a tax sale certificate, tax lien certificate, or tax deed. Within the period provided by law, the property may be redeemed according to legal provisions governing such transactions. A common procedure requires the property owner to pay to the governmental unit the amount of the tax sale certificate plus interest that has accrued since the sale, whereupon title to the property is released to the owner, without cloud of delinquent taxes. A fund of the agency type is well adapted to accounting for the receipt and disbursement of title redemption money.

Tax sales are ordinarily open to competitive bidding, which may result in a selling price in excess of the total charges against the property. This excess belongs to the owner who is being divested of his property, and must be accounted for as a liability of the collecting fund. The sale of the property for a bid of $350 might be recorded as follows:

Cash	350	
Taxes Receivable—Current		80
Taxes Receivable—Delinquent		190
Interest and Penalties Receivable		35
Property Owners' Trust Fund Balance		45

Although shown as a single transaction, the sale should actually be recorded in two funds, $305 in the general fund and $45 in the trust fund. Unless mandated by law, use of the trust fund might be dispensed with and the excess merely recorded as a liability of the general fund, under some such title as "Due to Property Owners." The disbursement of the excess to the property owner would require a debit to the account credited at the time of the sale, with a credit to Cash.

Failure to receive a bid equal to the total charges against the property ordinarily results in the governmental unit's taking provisional title to the property, under the caption of "Tax Sale Certificates." Had a bid of at least $305 not been received for the above property, it would have been "bid in" by the county and the following entry recorded:

Tax Sale Certificates (or similar title)	305	
Taxes Receivable—Current		80
Taxes Receivable—Delinquent		190
Interest and Penalties Receivable		35

If it could be demonstrated that all tax sale certificates acquired by a governmental unit would subsequently be converted into cash, no provision for loss would be necessary; nor is it necessary if the government merely charges off tax sale certificate losses to the Estimated Uncollectible Taxes and Estimated Uncollectible Interest and Penalties accounts. However, the better practice is to provide an Estimated Uncollectible Tax Sale Certificates account at the time of recording the acquisition of the certificate. As for other loss estimates, this one should be increased on the basis of past experience. If it has been found that loss on tax sale certificates acquired averages 20 percent, then an allowance of $61 should be established when the certificate is acquired at a book cost of $305. This estimated loss may be prorated between the Estimated Uncollectible Taxes and the Estimated Uncollectible Interest and Penalties accounts on the basis of the relative amounts of those two items written off—in the above case, 270/305 to the former and 35/305 to the latter. Following that plan, acquisition of the tax sale certificate would be recorded as follows:

Tax Sale Certificates	305	
Estimated Uncollectible Taxes Receivable	54	
Estimated Uncollectible Interest and Penalties Receivable	7	
Taxes Receivable—Current		80
Taxes Receivable—Delinquent		190
Interest and Penalties Receivable		35
Estimated Uncollectible Tax Sale Certificates		61

Realization of a tax sale certificate may be at a figure in excess of the amount of the certificate, due to collection of interest for the time held and the possible accrual of another year's taxes. To illustrate, let it be assumed that before the tax sale certificate is sold, additional taxes of $65 and additional interest of $10 have accrued and been recorded against the property. The entry for the sale would be as follows:

Cash	380	
Tax Sale Certificates		305
Taxes Receivable—Current		65
Interest and Penalties Receivable		10

On the other hand, had only $225 been realized from the sale, the loss would be chargeable to the valuation allowance, as follows:

Cash	225	
Estimated Uncollectible Tax Sale Certificates	80	
Tax Sale Certificates		305

It will be noted that the charge to the Estimated Uncollectible Tax Sale Certificates exceeds the amount added to the estimate when the governmental unit took provisional title to the property. This is not irregular: additions to the loss provision are at an estimated rate which is expected to cover all losses over a period of time. Losses on some certificates may be expected to exceed the amount of the estimate provided when they were acquired, whereas other certificates will be disposed of without loss. An alternative procedure would be to charge to Fund Balance the excess of the loss over the amount that had been provided.

The operation of writing off a tax sale certificate in the absence of an Estimated Uncollectible Tax Sale Certificates account may be illustrated by assuming that instead of being sold, the property is transferred, without remuneration, to some department or agency for public use. When the property was "bid in" by the governmental unit, all charges against it, including taxes and interest and penalties receivable, were accumulated in the debit to Tax Sale Certificates. When the title to the property is surrendered to some other department or agency, without remuneration, the amounts of taxes and interest and penalties represented in the total written off may be debited proportionately to the respective allowances. If the tax sale certificate carried at $305 included $270 of taxes and $35 of interest and penalties, the transfer would be recorded as follows, using the plan just described:

Estimated Uncollectible Taxes	270	
Estimated Uncollectible Interest and Penalties	35	
Tax Sale Certificates		305

The transfer of tax-delinquent property from a revenue fund to the general fixed assets group without compensation from any source creates a problem of valuation in the general fixed assets group. One possibility would be to capitalize the property at the total of all charges relinquished by the transferor fund. This basis would be acceptable if that amount is somewhere near the real value of the property. Actually, a frequent reason why tax-delinquent property cannot readily be sold is that its real value is materially less than the amount of taxes, interest, and penalties accumulated against it. It would seem, therefore, that property so acquired should be appraised; and if the resulting valuation is substantially less than the sum of all charges against it, then the appraised value should be recorded.

Tax sale certificates in financial statements

Tax sale certificates, tax certificates, or tax liens, as they are variously described, are normally carried among the assets of the funds by which they were acquired, even though the funds may be of the general or special revenue classification. The fact that they represent a form of real estate ownership creates no paradox, since they are only transitory stages in the collection of tax levies. Estimated Uncollectible Tax Sale Certificates is a valuation account and should be deducted from the asset. If the amount of tax sale certificates is large and their conversion slow, it would be advisable to establish a reservation of retained earnings, to indicate the amount not expected to be available for expenditure in the current or succeeding period.

Statements related to property taxes

Notwithstanding the fact that revenue derived from property taxes is much less than the amount derived from other sources, property taxes occupy a very important place in the economy of government. First, as already stated, they provide a substantial amount of the financial support for local government; and, second, they are levied in part against the homes and personal belongings of the citizenry. For these reasons, they bear special significance to private and community welfare. These facts are reflected in the number of supplementary reports and schedules related to property taxes appearing in published financial reports of governmental units below the state level. These relate to property valuations, tax rates, tax levies, tax liens, and interest and penalties, as the more commonly occurring statements. Some of these are of special interest to taxpayers for their value in describing the impact of property taxes, and others are of primary interest to governmental legislative bodies and administrators for assistance in managing the financial affairs of their units. All of them have more or less value to both taxpayers and governmental officials.

Assessed values and estimated true value of properties

This statement is of special importance to governmental officials, since it shows what is commonly referred to as the "tax base," that is, the gross property value subject to taxation. The comparison of assessed values with estimated true values—sometimes called "cash values" or "sale values"—gives the taxpayer an idea of the real tax burden. The partial statement shown in Illustration 15–5, by reporting on a period, has the capability of revealing trend or direction, which in Oakdale's case was noticeably even. Comparisons reduced to percentages carry information to a condition more useful for decision making than the same information in crude form. Inclusion of information about estimated true value helps to indicate whether a high property tax rate, compared with that of other similar governmental units, may be partly the result of a low assessed value, compared with estimated true value. A similar comparison might give, as well, part of the reason for a comparatively low rate.

Illustration 15–5

TOWN OF OAKDALE

Assessed Value and Estimated True Value of All Taxable Property, 1960–69
(in thousands of dollars)

Fiscal Period	*Real Property*		*Personal Property*		*Other Property*		*Total*		*Ratio of Total A.V. to Total E.T.V.*
	A.V.	*E.T.V.*	*A.V.*	*E.T.V.*	*A.V.*	*E.T.V.*	*A.V.*	*E.T.V.*	
1960	$2,364	$ 6,681	$1,988	$3,888	$976	$3,904	$5,328	$14,473	36.8%
1961	2,791	8,052	2,104	3,916	833	3,317	5,728	15,285	37.5
1968	4,301	13,664	3,861	7,704	907	3,477	9,069	24,845	36.5
1969	4,113	13,907	3,764	7,604	973	3,827	8,850	25,338	34.9

Illustration 15–6 is a simpler form of statement of assessed value of real and personal property, the major difference being omission of the estimated value information. The imaginary statement is based on a statement in a published financial report of Kansas City, Missouri. Because of minor deviations from the actual statement, it is not being identified as a Kansas City statement.

An important kind of information omitted from both Illustrations 15–5 and 15–6 is the amount of tax-exempt property for each year covered by the statements. Because of the large, and apparently increasing, amount of property value being exempted from taxation, that information is of great significance. The real tax base is not total assessed valuation, but that total less exemptions.

Illustration 15–6

CITY OF X

Assessed Valuation of Real and Personal Property for Fiscal Years 1957–58 to 1967–68

Year	*Real Estate*	*Personal Property: Manufacturers, Service, and Individual*	*Utilities*	*Total Valuations*
1957–58......	$535,076,640	$301,552,040	$50,643,697	$ 887,272,377
1958–59......	559,285,960	340,752,105	52,442,495	952,480,560
1959–60......	574,757,850	332,646,710	53,660,165	961,064,725
1960–61......	588,791,350	309,293,360	56,540,812	953,625,522
1961–62......	631,344,830	309,207,059	59,532,809	1,000,084,698
1962–63......	659,507,385	314,564,045	62,369,603	1,036,441,033
1963–64......	682,995,100	315,827,933	67,010,654	1,065,833,687
1964–65......	698,326,535	325,097,195	67,613,841	1,091,037,571
1965–66......	712,979,780	332,861,271	68,049,016	1,113,890,067
1966–67......	731,866,490	344,309,850	76,710,770	1,154,718,125
1967–68......	751,119,380	358,181,730	78,400,000	1,187,701,110

Tax rates and tax levies

As recommended by the National Committee on Governmental Accounting, this statement summarizes tax rates and tax levies for the past 10 years. Both rates and levies are analyzed to show the participation of all units represented in both, that is, city, county, state, etc. The financial data contained in the report are supplemented by other tax data such as rate authorities, rate limitations, due dates, tax sale dates, etc. This type of statement is of special interest to property taxpayers and civic and commercial organizations which concern themselves with property tax control. An excellent example of a statement of tax rates and levies is the one prepared by the Auditor General of the city of Detroit, Michigan (Illustration 15–7). It will be noted that this city's statement goes slightly beyond the recommendations of the National Committee on Governmental Accounting and includes a summary of property values.

Tax levies and collections

This type of statement probably is of greater interest to governmental officials than to taxpayers individually or in groups. By the comparison of collections with levies by years, governmental administrators may judge the extent to which property taxes are proving severely burdensome to their constituents. Furthermore, the comparison may reveal the extent to which property tax collections can be relied upon for the current financing of governmental expenditures and, consequently, the probability of having to resort to outside borrowing. This information is valuable in budget making, as well as in month-to-month financial planning. Illustration 15–8 is a good example of this sort of statement. It is almost identical to the same kind of statement published in the annual financial report of

the city of Newark, New Jersey. Because of certain changes (not in amounts and descriptions) the illustration is not identified as being a city of Newark statement.

Statement of taxes receivable

This is a statement of financial condition and policy. It amplifies information given in the balance sheet as to the probable collectibility of unpaid taxes. For the responsible administrators, it supplies basic information for actions they may decide to take toward bringing about settlement of the unpaid amounts. To taxpayers in their capacity as voters, the statement is of slight interest, except that it may reflect inadequate or ineffective collection procedures. An example of this form of statement is shown in Illustration 15–9.

Statement of changes in taxes receivable

The value of this statement is chiefly administrative in nature. It is a reconcilement of the amount of taxes receivable shown in one balance sheet with the comparable balance shown in the next one. It is of negligible interest to the rank and file of taxpayers. This statement is well exemplified in the Kansas City annual report (Illustration 15–10).

Statement of interest and penalties receivable

This statement is useful mainly for administrative purposes. It is the source from which governmental officials obtain information about the age composition of this type of receivable and on which they base opinions as to collectibility of amounts composing the total. Organically, the statement is a schedule in support of interest and penalties receivable balances shown in fund balance sheets. Because of the relative unimportance of this type of statement to taxpayers and voters, it is not commonly found in published financial reports. Coverage of a 10-year period in the statement in Illustration 15–11 should not be construed as indicating that taxes, interest, and penalties are always carried in the accounts for 10 or more years. In some jurisdictions, those not converted into liens would have been written off before reaching that age.

Statement of changes in interest and penalties receivable

This statement is almost exclusively of managerial value. It is a reconcilement between the amounts shown for interest and penalties receivable in two successive balance sheets. It serves to reveal any unusual disposition of amounts due from taxpayers, for the causes represented. (See Illustration 15–12.)

Statement of tax liens receivable

The value of this statement lies in the information it provides governmental administrators in predicting the amount of cash that may be

Fiscal Year	Assessed Values[a] Real Estate	Personal Property	Total	City	Library	Total
1957–58	$3,285,145,070	$1,810,875,440	$5,096,020,510	23.834	.704	24.538
1957–58			5,598,628,158[a]	21.694[a]	.640[a]	22.334[a]
1958–59	3,306,714,830	1,695,373,720	5,002,088,550	24.222	.702	24.924
1958–59			5,486,460,252[a]	22.083[a]	.640[a]	22.723[a]
1959–60	3,337,989,240	1,561,399,040	4,899,388,280	24.556	.702	25.258
1959–60			5,371,956,843[a]	22.395[a]	.640[a]	23.035[a]
1960–61	3,350,504,350	1,586,871,080	4,937,375,430	24.523	.735	25.258
1960–61			5,672,174,774[a]	21.346[a]	.640[a]	21.986[a]
1961–62	3,341,300,940	1,436,721,240	4,778,022,180	24.994	.738	25.732
1961–62			5,507,996,411[a]	21.682[a]	.640[a]	22.322[a]
1962–63	3,290,740,740	1,316,145,410	4,606,886,150	24.478	.734	25.212
1962–63			5,285,411,561[a]	21.335[a]	.640[a]	21.975[a]
1963–64	3,254,364,100	1,245,603,140	4,499,967,240	24.463	.749	25.212
1963–64			5,264,577,424[a]	20.910[a]	.640[a]	21.550[a]
1964–65	3,228,695,300	1,240,859,610	4,469,554,910	24.463	.749	25.212
1964–65			5,229,935,894[a]	20.907[a]	.640[a]	21.547[a]
1965–66	3,240,804,000	1,296,775,880	4,537,579,880	23.239	.733	23.972
1965–66			5,196,904,960[a]	20.291[a]	.640[a]	20.931[a]
1966–67	3,185,092,710	1,200,432,860	4,385,525,570	23.243	.729	23.972
1966–67			4,991,121,110[a]	20.423[a]	.640[a]	21.063[a]
1967–68	3,545,072,410	1,262,625,520	4,807,697,930[a]	23.332[a]	.640[a]	23.972[a]

Other Tax Data

	City, Library, and School Taxes	*County Taxes*
Assessed Valuation Ratio	50% of true cash value	50% of true cash value
Assessment Date	December 31 preceding year of levy	December 31 preceding ye
Tax Rate Limitation	City—20 mills (exclusive of debt service, but including general obligation bonds authorized in the budget) Library and School—See County Taxes	15 mills, including Lib School, but exclusive of de and additional millage aut the voters: mill, 1955–70 completed County capital ments and related debt se mill, 1964–69, for Count purposes; 7½ mills, 19(School general purposes; a 1967–72, for School genera
Tax Rate Limitation Authority	City—City Charter Library and School—State Constitution	State Constitution
Taxes Collected by	City Treasurer	County Treasurer
Fiscal Year	July 1 to June 30	December 1 to November
Tax Lien Date	July 15 of year of levy	December 1 of year of levy
Taxes Payable	July 15, and no interest is added if paid on or before August 31. Taxes may be paid in two parts, provided one half is paid on or before August 15, the second half then being payable on or before January 15 without penalty. A tax prepayment plan is available.	December 1, and no coll added if paid on or befor 15.
Penalties and Interest for Delinquency:		
General Taxes	1½% on September 1 ½% on October 1 ½% per month thereafter	4% collection fee January per month starting March months to tax sale date. purposes tax is augmente (4% fee plus ¾% per mo months) plus $1.50 for e sale. 1% per month on mented tax from the sale c one-year redemption period

DETROIT*
(City, Library, School, County—Combined), 1958–68

Rates		Tax Levies			
County[b]	*Combined Tax Rates*	*City and Library*	*School*	*County*[b]	*Combined Tax Levies*
7.412 6.741[a]	46.024 41.885[a]	$125,037,645	$71,718,427	$37,740,327	$234,496,399
7.022 6.408[a]	45.998 41.941[a]	124,669,445	70,281,556	35,156,044	230,107,045
6.823 6.217[a]	49.461 45.103[a]	123,745,178	85,151,368	33,397,321	242,293,867
6.869 5.984[a]	50.473 43.938[a]	124,708,049	90,575,141	33,940,776	249,223,966
7.191 6.235[a]	51.525 44.693[a]	122,947,551	88,879,748	34,342,536	246,169,835
6.928 6.035[a]	50.952 44.406[a]	116,143,989	86,658,373	31,898,690	234,701,052
7.135 6.096[a]	51.607 44.108[a]	113,447,327	86,663,027	32,090,527	232,200,881
8.560 7.310[a]	53.040 45.323[a]	112,685,633	86,114,328	38,232,639	237,032,600
8.460 7.389[a]	51.296 44.790[a]	108,774,864	85,592,510	38,397,987	232,765,361
8.865 7.777[a]	51.913 45.602[a]	105,126,391	83,657,232	38,818,444	227,602,067
7.130[a]	53.234	115,249,079	106,399,221	34,134,650	255,782,950

Other Tax Data—*Concluded*

	City, Library, and School Taxes	*County Taxes*
Tax Sale Date	Last business day in June following year of levy.	First Tuesday in May in third year following year of levy.
Delinquent Taxes Handled as Follows	Delinquent real estate taxes are bid in at the face amount by the City Controller unless paid by a party in interest prior to completion of the sale. The City may foreclose real estate tax liens after a redemption period of two years from date of sale. The City may bring suit to collect personal property taxes as a debt against the owner, or personal property may be seized and sold by the City to satisfy the tax lien.	Delinquent real estate taxes, if not sold to private buyers, are bid in by the State at the amount of unpaid tax plus accrued interest and penalties. After a redemption period of one year from date of sale, title to tax delinquent lands vests in the State which offers them for sale, unless they are reserved for public use. The net proceeds from this source are distributed to the taxing units (City, County, School Districts, etc.) in accordance with their respective tax interest in the lands sold. The County may bring suit to collect personal property taxes as a debt against the owner, or personal property may be seized and sold by the County to satisfy the tax lien.
Special Assessments (Other than sidewalk and water main assessments)	Part one is due within 30 days from first publication notice. Remaining parts are due annually with interest at ½% per month from first of month following due date. Delinquent special assessments are generally handled in the same manner as delinquent real estate taxes.	Wayne County municipalities other than Detroit report delinquent special assessments to the County Treasurer as of March 1, along with other taxes for collection; such special assessments are included on the general tax rolls at the augmented balance. Thereafter, collection fees, interest, and penalties are computed on the same basis as for general taxes.

* *Annual Financial Report by the Auditor General, City of Detroit, Michigan, for the Fiscal Year Ended June 30, 1967*, pp. 106–107.

[a] Assessed values are the State equalized valuations which are the official assessed valuations, for taxable property situated within the City of Detroit. All other assessed values shown above are as determined by the City Board of Assessors. For 1967–68 the State equalized valuation is the same as the valuation determined by the City Board of Assessors.

[b] The County tax rates and tax levies shown above are those levied against properties situated within the City of Detroit. The total assessed valuation used in determining the County tax rate recognizes adjustments in assessed valuation made after the City tax rate is determined.

Illustration 15–10

CITY OF KANSAS CITY, MISSOURI*

Analysis of General Property Taxes Receivable†
All Funds, Year Ended April 30, 1967

	Combined	*General Fund*	*General Debt and Interest Fund*	*Trafficway Maintenance Fund*	*West Park Fund*
Balance at May 1, 1966	$ 1,383,218	$ 938,114	$ 428,245	$ 6,615	$ 3,738
Add:					
Current year's levy	18,026,076	11,547,459	5,773,729	323,789	209,373
Additions:					
Current year's levy	395,127	262,217	131,108	900	434
Prior years' levies	127,486	85,875	41,498	56	18
Total	$19,931,909	$12,833,666	$6,374,582	$331,361	$213,565
Deduct:					
Cash collections‡					
Current year's levy	$17,763,819	$11,378,403	$5,689,201	$320,245	$207,863
Prior years' levies	213,383	141,288	67,754	2,026	600
Total cash collections	$17,977,203	$11,519,692	$5,756,956	$322,271	$208,464
Abatements:					
Current year's levy	$ 303,206	$ 200,934	$ 100,467	$ 902	$ 195
Prior years' levies	24,344	16,336	7,766	101	8
Total abatements	$ 327,550	$ 217,271	$ 108,233	$ 1,003	$ 204
Real estate and boulevard taxes transferred to county collector for collection under land tax collection law	8,541	5,338	2,443	368	55
Unpaid personal property taxes levied in 1961 written off	230,429	161,764	68,064	...	...
Total deductions	$18,543,724	$11,904,067	$5,936,297	$323,643	$208,723
Balance at April 30, 1967	$ 1,388,184	$ 929,598	$ 438,285	$ 7,717	$ 4,841

* *City of Kansas City, Missouri, Annual Financial Report, Year Ended April 30, 1967.* To economize on space, an *East Park Fund* column was omitted here.
† This is a *statement of changes* in general property taxes receivable. Amounts "rounded."
‡ Does not include collections of Intangible Personal Property Tax (collected by State) and delinquent Real Estate, Trafficway, Park Maintenance, and Boulevard Taxes previously transferred to County Collector for cancellation under the Land Tax Collection Law.

Illustration 15–11

TOWN OF PARAGON

Statement of Interest and Penalties on Taxes, by Funds, for Fiscal Years
Ended June 30, 1960–69
June 30, 1969

Year	Total	Funds: Operating	Library	Debt Service
1969	$ 31,200	$18,800	$ 8,400	$4,000
1968	21,600	12,160	8,240	1,200
1961	3,160	2,120	1,040	
1960 and prior years	4,040	3,320	720	
Total interest and penalties	$150,000	$84,800	$55,960	$8,240
Less: Estimated uncollectible interest and penalties	24,800	15,600	7,920	1,280
Net Interest and Penalties	$125,200	$69,200	$48,040	$6,960

Illustration 15–12

TOWN OF BROOKSBURG

Statement of Changes in Interest and Penalties Receivable on Taxes
for Fiscal Year Ended December 31, 1969

Interest and penalties receivable on taxes, December 31, 1968		$33,200
Add: Interest and penalties accrued during 1969		17,320
Total		$50,520
Deduct:		
Collections	$8,160	
Abatements and cancellations	2,040	
Transfers to tax liens	9,120	19,320
Interest and Penalties Receivable on Taxes, December 31, 1969		$31,200

Other tax statements

A survey of published financial reports of governmental units reveals that although the 10 statements described and illustrated appear with greatest frequency, some other kinds may be found. In general, these are statistical in nature. The more frequent ones are reports of taxes per $100 or $1,000 of assessed valuations, statements of apportionment of tax rates by funds over a period of years, classified statements of properties exempt from taxation, reports of use of money raised by tax levies, and statements of tax levies per capita. Although these supplementary statements are of interest to government officials, it is probably safe to say that they are of greater significance to students of political science and to that segment of taxpayers and voters who take more than a passing interest in the effect of taxation on their personal affairs.

4. A county council ordained a general fund tax levy of $1.10 per $100 on a net assessed valuation of $100,000,000. Uncollectibility was estimated at 3 percent and it was expected that 40 percent of bills paid would qualify for the 2 percent discount offered for early payment.
   a) Show the entry made to record the levy.
   b) Show the entry made to record payment of $30,000 of taxes within the discount period.
   c) Show the amount of total credit to be given a taxpayer who made a partial payment of $300 cash within the discount period.
5. It is the practice of a certain governmental unit to transfer taxes receivable and interest and penalties receivable to a Tax Sale Certificates account without transferring any provision for loss. Under such a policy, what entry should be made to write off a tax sale certificate of $378 of which $321 is taxes, $42 interest and penalties, and the balance cost of holding sale?
6. In a certain municipality, property taxes are charged to property owners at the beginning of the year in which they are to be collected, but not credited to revenue until collection is made. This separation is made by use of a Reserve for Uncollected Taxes as a credit for the major portion charged to property owners. What effect does this have upon the period classification of receipts from collection of taxes previously written off as uncollectible?
7. In a certain state, the individual or business unit is responsible for determining if taxes are owed and, if so, how much. However, county treasurers mail statements to all taxpayers. How can that be justified, since primary responsibility is with the taxpayer?
8. One manufacturer of office equipment produces a machine adapted to repetitive recording of information which remains relatively unchanged from year to year. Can you think of any operation or segment of property tax accounting for which such equipment might be well adapted?
9. What advantage do you see in having tax duplicates (records of taxes owed) prepared in one department, but receipt of and accounting for collections administered in another?
10. In a country located near the United States, property which is owned by territorial units of government is subject to taxation by the local unit of government in whose jurisdiction it is located. This is not true in the United States. What is your appraisal of this contrast? Which system is more just in an economic sense?
11. Why is there no provision for uncollectible taxes in a tax agency fund?
12. The records of a municipality revealed a total of approximately $54,000,000 of assessable property located within its jurisdiction; but $2,500,000 of this valuation claimed mortgage exemptions, and $800,000 claimed military service and other exemptions.
    a) What percentage of tax levy would be required to raise $1,260,000 of taxes, assuming 100 percent collection? Carry decimals to hundred thousandths, which will give percentages in thousandths.
    b) What rate, in terms of dollars and cents per $100 of valuation, is represented by the percentage rate in (*a*)?

c) What percentage of tax levy would be required to raise $1,260,000 if there were no exemptions in the situation described above?
d) How much extra tax will have to be paid on each $10,000 assessed value of nonexempt property to cover the amount lost by the exemptions?

PROBLEMS

1. In a midwestern state, business enterprises are required to file what are called "business lists," for taxation of their tangible real and personal property. Included in this list is a balance sheet. Below is given a hypothetical balance sheet of an imaginary corporation in that state.

EXCEL CORPORATION
Balance Sheet
March 1, 1969

Assets		*Liabilities and Reserves*		
Cash in bank	$ 12,500	Accounts payable		$ 4,700
Cash on hand	600	Mortgage payable on real estate		10,000
Accounts receivable	6,200	Accrued payroll		2,000
Inventories of products and and supplies	15,000	Estimated uncollectible accounts receivable		310
Land	10,000	Allowance for dep.—buildings		6,900
Building	45,000	Allowance for dep.—machinery and equipment		8,000
Machinery and equipment	19,000	Total Liabilities and Reserves		$ 31,910
Prepaid insurance	600			
		Net Worth		
		Capital stock	$50,000	
		Retained earnings	26,990	
		Total Net Worth		76,990
Total Assets	$108,900	Total Liabilities, Reserves, and Net Worth		$108,900

The state has a law specifying that real and tangible personal property shall be assessed at 33⅓ percent of its true cash value. It also has a mortgage exemption law which authorizes an exemption of $1,000, or one half the appraised value of the real estate, whichever is less.

Assuming that in the above balance sheet all book values represent true cash values at the assessment date for 1970 taxes, compute what you think would be the amount on which Excel would be required to pay taxes in 1970.

2. Below is given a collection of information of the major kinds which are required in determining the amount of revenue required to be raised by

property taxes and for calculation of a tax rate for the city of Liberty general fund.

Amount of expenditures budget approved by city council for 1970 operations	$ 1,913,000
Estimated expenditures July 31 to December 31, 1969	872,000
Estimated amount to be received by city general fund in the December, 1969, tax distribution by the county treasurer	971,000
Actual balance of general fund at July 31, 1969	340,000
Estimated working balance required at December 31, 1970, based upon projected expenditures for 1971	793,000
Assessed value of real and tangible personal property compiled by county assessor's office as of March 1, 1969	37,866,290
Estimated miscellaneous revenue:	
July 31–December 31, 1969	74,000
All of 1970	160,000
Total of mortgage, military service and other exemptions on file for 1970 taxes	4,739,840
Estimated amount of state and federal aid to be received for general fund use in 1970	850,000

You are required to do the following things:

a) Prepare a statement in good form to determine the amount of property tax levy required for the city of Liberty general fund for 1970.

b) Compute the tax rate, in dollars and cents, per $100 of net assessed value, required to be levied for the city of Liberty general fund to raise the amount of revenue needed according to your statement for (*a*).

c) State whether the amount of tax levy required for 1970 would need to be increased, or could be decreased, if $2,600 of 1970 taxes had been prepaid in 1969 and it was anticipated that $3,500 of 1971 taxes would be prepaid in 1970.

d) Determine the rate, in dollars and cents, which would be required (per $100) if it were estimated that $80,000 should be added to the required levy calculated in (*a*), to cover probable uncollectible taxes. Calculate by merely making the necessary changes in the answers to part (*b*).

e) If it is estimated that of whatever amount is levied, approximately 2 percent will be uncollectible, state the amount of levy required to yield collections of $500,000.

f) Using the amount of cash required from the property tax levy as shown in the solution to (*a*), determine the amount of levy necessary if it is estimated that 3 percent of the levy will not be collected, and that of the bills paid, 20 percent will earn a 2 percent discount.

3. Below are listed several items, with amounts, which might appear in the statement used for calculating the amount of property tax required for a certain year, by the general fund of a school district which operates on a strict cash basis. Items are listed in approximately alphabetical order.

Balance of cash, June 30, 1969	$ 120,000
Current operating expenditures during 1970	1,420,000
Debt service requirements during 1970	230,000
Estimated expenditures during first six months of 1971	980,000

Payments for transfers of students to other school districts, 1970	32,000
Payment of current operating expenses, last six months of 1969	661,000
Probable receipts from state government, last six months of 1969	92,000
Probable amounts to be received for transfers from other school districts: balance of 1969, \$18,000; during 1970, \$49,000	67,000
Probable amount to be received from state and federal governments during 1970	617,000
Receipts expected from county distribution of property taxes, second half of 1969	579,000
Revenues expected to be received from miscellaneous sources during 1970	24,000
Budgeted payment of cash to transportation fund, last half of 1969	17,000
Working balance permitted at end of 1970: 30% of estimated expenditures during first half of next year	

You are required to do the following things:

a) Compute the amount of working balance which will be on hand at December 31, 1969, if estimates given above are realized.

b) State the amount of working balance to be provided for the beginning of 1971 if the maximum legal amount is to be on hand.

c) Compute the total cash which must be provided for 1970 expenditures if all estimated requirements, including working balance, are allowed.

d) Compute the amount of nontax cash receipts expected for 1970 if all estimates for the year are realized.

e) Compute in simple form the amount of money which will be required from property taxes in 1970 to satisfy all requirements to the end of 1970.

4. In their audit of a county office the examiners representing a state audit agency discovered a property tax rate statement which appeared to contain a few errors, possibly due to its having been prepared by an inexperienced person. As found by the examiners, the statement appeared as follows:

TOWN OF METAMORA

Operating Fund

Statement of Property Tax Rate for Fiscal Year Ending February 28, 1971

September 1, 1969

Requirements:		
Estimated total expenditures, September 1, 1969–February 28, 1970		\$ 403,000
Proposed expenditures during fiscal 1971		964,000
Actual balance in fund, September 1, 1969 (deficit)	\$(11,000)	
Less: Estimated miscellaneous receipts, September 1, 1969–February 28, 1970	23,000	12,000
Estimated additional appropriation required for remainder of fiscal 1970		51,000
Liquidation of loan from street fund		20,000
Total requirements		\$1,426,000
Resources other than the property tax levy for fiscal 1971:		
Advance from water fund	\$ 25,000	
Estimated revenue from property taxes, balance of fiscal 1970	431,000	
Estimated miscellaneous revenue, fiscal 1971	81,000	
Prepayment of fiscal 1972 taxes in fiscal 1971	32,000	
Total resources other than property tax levy		569,000
Amount Required from Property Tax Levy, Fiscal 1971		\$ 857,000

$$\text{Property rate required for fiscal 1971} = \frac{\$857{,}000}{\$32{,}076{,}010} = \$2.67 \text{ per } \$100$$

Investigation revealed that tax exemptions totaling $3,769,010 had been overlooked and that a desired February 28, 1971 working balance of $287,000 had been omitted. You are required to do the following things:

a) Prepare, in good form, a statement which will include a better organization of facts bearing on the required amount to be derived from a property tax levy for the fiscal year ending February 28, 1971. Assume (1) that all bona fide resources and expenditures of the fund during fiscal 1971 will be in the form of cash transactions; and (2) that the round amount of $30,000 should be added to the amount of cash required from the fiscal 1971 tax levy, in determining the total levy and total rate.

b) Compute the tax rate in dollars and cents per $100 of net assessed valuation necessary to yield the amount required from the fiscal 1971 levy. Assume the gross assessed valuation already employed is correct.

5. The town of Deerfield reports its tax rates in terms of cents, or dollars and cents, per $100 of taxable valuation. For the three years indicated, the town's composite rates were as shown below:

Fund or unit	*1967*	*1968*	*1969*
Current fund	$1.12	$1.14	$1.20
Police and firemen's pension fund	.44	.39	.33
Deerfield school corporation	.95	.98	1.01
Jackson township	.13	.12	.14
Madison county	.71	.73	.72
Composite rates	$3.35	$3.36	$3.40

Taxes on property within the boundries of Deerfield are collected by the town treasurer, who then distributes them to the participating funds and units.

Representing his collections for the second period of 1969 the treasurer had the following amounts:

From 1967 levy	$ 50,250
From 1968 levy	470,400
From 1969 levy	5,725,600
Total	$6,246,250

The county tax of $0.72 per $100 of assessed valuation for 1969 was constituted as follows:

General fund	$.26
Debt service fund	.13
Public assistance fund	.21
Bridge repair fund	.12
Total	$.72

Utilizing the information given above, you are required to do two things:

a) Prepare in good form a statement such as the town treasurer might have prepared as the basis for distribution of the second-half tax collections on all three levies. This can be done by showing for each year's levy the fractional share belonging to the several funds and units and the amount of each one's equity in the collections.

b) Prepare a similar schedule for the county's share of collection on the 1969 levy.

6. By consent of, and in compliance with, orders of proper authorities, the county of Hardin assumed, as of January 1, 1969, the responsibility of collecting all property taxes levied within its boundaries. The following regulations applied to accounting for the tax agency fund:

(1) When taxes are certified to it, a credit to the agency fund balance and to a subsidiary account for the certifying unit must be made.
(2) Amounts available for distribution to the taxing units must be debited to the agency fund balance and the appropriate subsidiary accounts and credited to liability accounts of the proposed recipients.
(3) Amounts charged to the participating funds and units, as service charges, uncollectibility, etc., must be debited to the agency fund balance and the appropriate subsidiary account or accounts.
(4) Of amounts collected for other units, 1 percent was to be recorded as due to county current fund.
(5) For purposes of this problem, the total of collections on current and delinquent taxes may be assumed to have been in the same proportions as the 1969 levy (32/448, etc.).

The following transactions, some affecting only one fund or unit and some affecting two or more, occurred during 1969.

(1) Delinquent taxes totaling $266,280 were certified to the tax agency fund for collection.
(2) Current year's taxes levied and certified for collection were as follows:

County current fund	$ 320,000
Town of Moorland	1,280,000
Hardin County consolidated school district	1,920,000
Various townhips	960,000

(3) $2,688,000 current and $89,600 delinquent taxes were collected during the first half of 1969.
(4) Liabilities to all the funds and units as the result of the first half-year collections were recorded. (A schedule of amounts collected for each participant, showing amounts withheld for the county current fund and net amounts due the participants, is recommended for determining amounts to be recorded for this transaction.)
(5) All money in the agency fund was distributed.
(6) Prior years' taxes certified back to participants as being uncollectible were as follows during the first half of 1969:

County—current fund	$22,100
Town of Moorland	33,500
Hardin County consolidated school district	61,800
Various townships	27,900

$$\text{Property rate required for fiscal 1971} = \frac{\$857{,}000}{\$32{,}076{,}010} = \$2.67 \text{ per } \$100;$$

Investigation revealed that tax exemptions totaling $3,769,010 had b overlooked and that a desired February 28, 1971 working balance $287,000 had been omitted. You are required to do the following thing

a) Prepare, in good form, a statement which will include a better organ tion of facts bearing on the required amount to be derived fror property tax levy for the fiscal year ending February 28, 1971. Assı (1) that all bona fide resources and expenditures of the fund dui fiscal 1971 will be in the form of cash transactions; and (2) that round amount of $30,000 should be added to the amount of cash quired from the fiscal 1971 tax levy, in determining the total levy total rate.
b) Compute the tax rate in dollars and cents per $100 of net assessed va tion necessary to yield the amount required from the fiscal 1971 le Assume the gross assessed valuation already employed is correct

5. The town of Deerfield reports its tax rates in terms of cents, or dollars cents, per $100 of taxable valuation. For the three years indicated, town's composite rates were as shown below:

Fund or unit	*1967*	*1968*	*1969*
Current fund	$1.12	$1.14	$1.20
Police and firemen's pension fund	.44	.39	.33
Deerfield school corporation	.95	.98	1.01
Jackson township	.13	.12	.14
Madison county	.71	.73	.72
Composite rates	$3.35	36	

...elinquent tax properties wh

Taxes on property within the bound...ed in the general fund:
town treasurer, who ther...
units. ...es for delinquent taxes several pieces were removed f
...ist, by payment of these amounts:

Current taxes	$13,190
Delinquent taxes	43,760
Interest and penalties receivable	2,010
Interest and penalties accumulated since advertisement of the properties	190

(2) One property was removed from the delinquency list, where it had been erroneo included under the name of one individual who had transferred it to another wit complete recording of the transfer. Total recorded delinquencies to be removed c sisted of $460 current taxes, $1,210 delinquent taxes, and $130 interest and penal receivable. Of these charges, $490 was credited to 1969 Revenues.

(3) Results of the public offering were as follows:

(a) Because of failure to receive legally adequate bids for a number of the offe properties, the county took tax sale certificates for properties charged w $15,660 current taxes, $37,390 delinquent taxes, and $10,140 interest and pe ties receivable. In recording the transfer from receivables to tax sale certifica

40 percent of the amount of each of the receivables transferred was also transferred out of the respective allowance accounts, to the allowance account for loss on tax sale certificates.

(b) Properties against which charges were not accounted for by payment, cancellation, or conversion to tax sale certificates were sold for $107,950, which included additional revenue of $1,370 from interest and penalties and $7,150 excess for property owners of record.

(4) The excess cash collected for property owners of record was transferred to a special agency fund, pending distribution to the owners.
(5) Tax sale certificates of $9,010 face value were redeemed, with an additional $880 received as interest and penalties revenue. 40 percent of the face value was reclassified from estimated uncollectible to Fund Balance.
(6) $3,760 face value of tax sale certificates which had been held the legally stipulated period without a buyer were canceled, and a tax title for the property was given to a governmentally affiliated agency.
(7) In addition to tax certificate transactions narrated above, the county authorities sold tax sale certificates having a total face value of $15,980 for cash of $11,320.

You are required to record all transactions stated above.

8. Suspecting irregularities in accounting for tax sale certificate transactions, the administration of Harbor City employed an accounting firm to make a detailed audit of tax sale certificate transactions early in the fiscal year beginning October 1, 1969.

According to the Tax Sale Certificate ledger account the face amount of tax sale certificates held at September 30, 1968 was $437,650.

The following transactions, certified by the auditors, occurred during the fiscal year ended September 30, 1969:

(1) Tax sale certificates of the total face amount of $26,110 shown as having been on hand at September 30, 1968 could not be located, nor was there a record of their sale or redemption up to the time of the audit. The amount was billed to the bonding company of the former employee charged with the shortage.
(2) The face value of tax sale certificates representing properties transferred to other governmental agencies without compensation was $24,090.
(3) Amount of current and delinquent taxes and interest and penalties receivable converted to tax sale certificates during fiscal 1969 was $301,030.
(4) Receipts from sale of certificates, at a gain of $5,820, were $41,630.
(5) Face amount of certificates reported sold during fiscal 1969 at no gain or loss was $367,140.
(6) Cancellation of certificates as a result of legal action came to $4,790.
(7) Face value of certificates issued as part of transaction (3), which could not be located or otherwise accounted for and were, therefore, charged to the former employee's bonding company, was $5,020.

You are required to prepare a statement of changes in tax sale certificates such as the auditors might have prepared to report the information provided above.

Arrange information to show both "book" and actual balances of Tax Sales Certificates controlling account at September 30, 1968.

9. A new employee of the village of Coldwater was given the following collection of property tax information relating to the fiscal years ended

June 30, 1967–69, inclusive, for use in preparing a summary of what it reveals:

1967: Prior years' levies uncollected at beginning of year, $84,390; current year's total levy, $312,740; abatements and other downward adjustments, $21,380; collections on 1967 levy, $266,710; collections on prior years' levies, $26,980.

1968: Current year's total levy, $333,980; abatements and other downward adjustments, $29,440; collections on 1968 levy, $271,030; collections on prior years' levies, $28,050.

1969: Current year's total levy, $361,020; abatements and other downward adjustments, $31,740; collections on 1969 levy, $297,250; collections on prior years' levies, $28,530.

Instruction to the new employee directed him to prepare a columnar statement based on the preceding information, showing for each year the following facts: current year's levy; abatements and other downward adjustments for each year; collections of current year's taxes; percent of current year's levy collected or canceled by end of year; amount of prior years' taxes collected; accumulated delinquent taxes (including current year's unpaid taxes); percentage of accumulated delinquent taxes to current year's net levy. (Net levy is total levy less abatements and downward adjustments.)

You are required to prepare such a statement as the new employee was directed to make. Carry percentages to the nearest tenth.

CONTINUOUS PROBLEM

15–L. You are required to:

a) Compute the general fund tax rate per $100 assessed valuation for the city of Bingham from the information in Problems 1–L through 14–L.

b) A resident of the city of Bingham is required to pay property tax levies of the state, county, township, and metropolitan school district, as well as the city general fund. If the rates per $100 assessed valuation are for the state, $0.01; county, $.41; township, $.14, and school district, $1.75—what total amount of taxes would a Bingham taxpayer have to pay if his personal property assessment was $1,850, and his real property assessment was $4,150?

c) Assume that the state in which the city of Bingham is located had a mortgage exemption law. This law provides that each property owner whose home is subject to a duly recorded mortgage may claim an exemption from taxation of $1,000 assessed valuation of real property, or the face of the mortgage, whichever is less. If mortgage exemptions granted total $4,000,000, compute the total property tax the taxpayer in part (*b*) would have to pay, if:

(1) He had filed for and received a mortgage exemption of $1,000.

(2) He had not filed for or received any mortgage exemption.

Chapter 16

Summarization of Interfund Relationships

Two aspects of interfund relationships are of special interest in governmental accounting. One of these concerns the frequency of governmental transactions which affect the accounts of two funds. Such transactions have been referred to at various points in previous chapters, and at this juncture it is intended to treat them in summary form. Disclosure of the financial condition of a governmental unit is best achieved by a combined balance sheet for all funds; this is the second aspect of interfund relationships discussed in this chapter.

Nature of interfund transactions

Transactions requiring entries in more than one fund seem to fall in two general classes, the term "transactions" here including any fact, change, or condition requiring a formal journal entry:

1. Transactions initiated in one fund and resulting in a claim against or a claim by another fund. Thus, when a debt service fund is established, to be financed principally by general fund contributions, the debt service fund ordinance creates a standing commitment against general fund resources and results in a periodic claim against general fund assets. Of the same nature is a provision in the instrument creating a trust fund which dictates the automatic transfer of earnings to some other fund. In this case, something done by one fund leads to a claim by another.
2. Transfers of assets—and, conceivably, of liabilities—from one fund to another, conducted upon the basis of individual situations and not repetitive in nature. Thus, real estate acquired by a general fund through tax foreclosure proceedings may be transferred to a special revenue or other type of fund. For this type of interfund relationship, preliminary or accrual entries are omitted; and no record is made in the transferee fund until consummation of the transfer.

For some transactions it is not possible to ascertain exactly where the action is initiated, but such determination is not of great importance. However, it is imperative to recognize all fund actions which concern the

accounts of another fund, in order to assure the recording of the transaction in the second fund.

Interfund borrowing

Due to normal irregularity in the receipt of income, fund expenses frequently run ahead of revenue in the earlier months of the fiscal year. This situation, referred to in Chapter 2, sometimes gives rise to the necessity of temporary borrowing to avoid undue delay in the payment of liabilities. To avoid paying interest, fund administrators may borrow from some fund having idle cash to finance another that has current liabilities but insufficient cash. Interfund transactions and interfund relationships of this kind must be officially sanctioned by the proper authorities.

Summary of typical interfund transactions

Although many interfund transactions are the result of unexpected and sometimes novel situations which follow no general pattern, it is nevertheless true that certain standard types prevail. In the following sections entries will be illustrated for some of the interfund transactions of most frequent occurrence, classified, in so far as possible, according to source of motivation. In the entries to follow, fund liabilities will frequently be described as "Due to—— Fund," in order to show clearly the interfund relationship. Actually, the liabilities might be set up as accounts or vouchers payable; or, having been set up in the manner illustrated, they might be converted to accounts or vouchers payable if processed through a voucher system before payment.

A. Transactions Initiated by Creditor Fund

1. Upon proper approval the general fund makes a temporary loan of $10,000 to a special revenue fund, pending collection of taxes by the latter:

   Entry in general fund:

Due from Special Revenue Fund	10,000	
Cash		10,000

   Entry in special revenue fund:

Cash	10,000	
Due to General Fund		10,000

   Upon repayment of the loan the above entries in both funds will be reversed.

2. The general fund makes a long-term advance to finance an intragovernmental service fund:

   Entries in general fund:

Advance to Intragovernmental Service Fund	15,000	
Cash		15,000

Fund Balance	15,000	
Reserve for Advance to Intragovernmental Service Fund		15,000

Entry in the Intragovernmental Service fund:

Cash	15,000	
Advance from General Fund		15,000

Similar entries might be made for long-term advances by any fund to another. If the advance is not recoverable, it would be accounted for as a contribution, entries for which are illustrated elsewhere.

3. The annual contribution due to the debt service fund from the general fund is $5,000:

   a) Entries for recording accrual of the contribution:
   Entry in debt service fund:

Due from General Fund	5,000	
Revenues		5,000

Entry in general fund:

Expenditures	5,000	
Due to Debt Service Fund		5,000

   b) Entries for payment of the contribution:
   Entry in general fund:

Due to Debt Service Fund	5,000	
Cash		5,000

Entry in debt service fund:

Cash	5,000	
Due from General Fund		5,000

It is possible that a general fund accounting procedure might require the recording of encumbrances for all expenditures, in which event the general fund entry for recording a liability to the debt service fund would be preceded by an encumbering entry. This would be reversed before recording the liability.

4. A special assessment project has been approved in the manner prescribed by law. Total assessments of $500,000, including $50,000 for the govern-

mental unit's share of the cost, have been levied. The levy will be collected from property owners in 10 equal annual installments.

Entries for setting up the assessment:

Entry in special assessment fund:

Assessments Receivable—Current	45,000	
Assessments Receivable—Deferred	405,000	
Due from General Fund	50,000	
Fund Balance		500,000

Entry in general fund:

Expenditures	50,000	
Due to Special Assessment Fund		50,000

5. An enterprise utility fund submits a bill to the general fund for electric service supplied to departments and agencies of the government:

Entry in enterprise fund:

Accounts Receivable	300	
Operating Revenues		300

(If the enterprise fund carries special accounts for billings to governmental departments and agencies, the appropriate title would be substituted for the debit.)

Entry in general fund (assuming it is to pay the bills):

Expenditures	300	
Due to Enterprise Fund		300

As in the case of certain general fund entries previously illustrated, an encumbrance might have been recorded to cover the utility bill; and if so, the expenditure entry would be accompanied by an encumbrance reversal. Entries for payment of the bill are so elementary as not to require illustration.

A relationship such as that illustrated above may arise from services or supplies furnished by an intragovernmental service fund to another fund, or from reimbursable construction done by a capital projects fund. However, in the latter case, credit for reimbursement in the capital projects fund would go to the Expenditures account, since the original expenditure charge was of recoverable nature.

6. It is assumed that one fund has made an expenditure chargeable in part to another fund and has debited the entire amount to its own Expenditures account:

Entry in general fund to charge part of an expenditure to another fund:

Due from Water Utility Enterprise Fund	100	
Expenditures		100

Entry in water utility enterprise fund for above charge:

Operating Expenses	100	
Due to General Fund		100

Entries for settlement would be routine in nature.

B. TRANSACTIONS INITIATED BY DEBTOR FUND

1. Net income of a nonexpendable trust fund is required to be transferred to an expendable trust fund. (In practice, the exact names of the funds should be used.)

   Entry on books of nonexpendable fund:

Interest Revenues	3,000	
Due to Endowment Revenues Fund		3,000

Entry in expendable trust fund:

Due from Endowment Principal Fund	3,000	
Revenues		3,000

Routine entries would record the settlement between the funds.

2. A tax agency fund, which has accounted for taxes collected for other funds, remits to the different funds, withholding 1 percent for fees due the general fund, which administers the operation of the agency fund:

   Entry in agency fund:

Due to State	70,000	
Due to Civil City	120,000	
Due to School City	96,000	
Due to Townships	62,000	
Cash		344,520
Due to General Fund		3,480

Entry in general fund:

Due from Tax Agency Fund	3,480	
Revenues		3,480

Entries required to record the settlement of the $3,480 claim are obvious.

3. A serial bond issue is sold to fund a deficit in the general fund:

   Entry in debt service fund for sale of bonds:

Cash	100,000	
Revenues		100,000

This entry would be accompanied by one in the general long-term debt group of accounts, but no debtor-creditor relationship would be involved. (See section C, below.)

Entry in debt service fund to record expenditure of proceeds of issue:

Expenditures	100,000	
Due to General Fund		100,000

Entry in general fund to record claim for proceeds:

Due from Debt Service Fund	100,000	
Fund Balance		100,000

Routine entries would record actual cash transfer between two funds.

Entries similar to those illustrated above would be made to record the results of the sale of bonds for the establishment of intragovernmental service or enterprise funds if the bonds are of the general classification and not to be retired from revenue of the funds financed.

4. A governmental unit general fund records liability for its annual required contribution to an employees' pension fund:

   Entry in general fund:

Expenditures	8,000	
Due to Employees' Pension Trust Fund		8,000

Entry in trust fund:

Due from General Fund	8,000	
Employees' Pension Trust Fund Balance		8.000

Only routine cash entries result from the settlement of the claim.

C. Transfers and Other Transactions Not Involving Debtor-Creditor Relationships

1. An issue of serial bonds is sold to provide money for financing the construction of a city hall:

   Entry in capital projects fund for sale of bonds:

Cash	500,000	
Revenues		500,000

Entry in general long-term debt group:

Amount to Be Provided for Payment of Serial Bonds	500,000	
Serial Bonds Payable		500,000

2. During a fiscal period, total expenditures of $400,000 on buildings were made by a capital projects fund. Assuming proper entries were made during the period (as discussed in Chapter 6) the closing entry should be:

Entry in capital projects fund:

Fund Balance	400,000	
Expenditures		400,000

Entry in general fixed assets group of accounts:

Construction Work in Progress	400,000	
Investment in General Fixed Assets—Capital Projects Fund		400,000

3. With additional expenditures of $75,000, which had been recorded, the project referred to in item 2, above, was completed:

Entry in capital projects fund:

Fund Balance	75,000	
Expenditures		75,000

Entry in general fixed assets group of accounts:

Buildings	475,000	
Construction Work in Progress		400,000
Investment in General Fixed Assets—Capital Projects Fund		75,000

4. A debt service fund required additions and required earnings for a given year were $10,000 and $6,000, respectively; and actual additions and actual earnings were $11,000 and $5,500, respectively.

Entry in debt service fund for actual contributions and actual earnings:

Cash	16,500	
Revenues		11,000
Interest Earnings		5,500

Entry in general long-term debt group of accounts:

Amount Available in Debt Service Fund—Term Bonds	16,500	
Amount to Be Provided for Payment of Term Bonds		16,500

5. A municipal electric utility transferred land carried on its books at \$2,000 and a building that cost \$15,000, on which depreciation of \$10,000 had been recorded, to the general city administration for public use:

   Entry in electric utility enterprise fund accounts:

Allowance for Depreciation—Buildings	10,000	
Retained Earnings (or Miscellaneous Revenue Deductions)	7,000	
Buildings		15,000
Land		2,000

   Entry in general fixed assets group of accounts:

Buildings	5,000	
Land	2,000	
Investment in General Fixed Assets—Electric Utility		7,000

6. Administrators of a municipal electric utility voted a payment of \$15,000 to the general fund in lieu of property taxes:

   Entry in enterprise fund:

Transfer to Municipal General Fund	15,000	
Due to General Fund		15,000

   Entry in general fund:

Due from Electric Utility Enterprise Fund	15,000	
Revenues		15,000

   Routine cash entries would record the settlement of the contribution.

7. General obligation bonds of \$100,000 par value mature. Assuming they are serial bonds:

   Entry in debt service fund:

Expenditures	100,000	
Bonds Payable		100,000

   Entry in general long-term debt group of accounts:

Serial Bonds Payable	100,000	
Amount to Be Provided for Payment of Serial Bonds		100,000

   Liquidation of the bonds would require routine cash entries.

8. *Upon completion of a construction project financed by a capital projects fund*, the Premium on Bonds account showed a balance of \$1,000 and

Fund Balance a balance of $3,000, both of which amounts were directed to be transferred to the debt service fund:

Entry in capital projects fund:

Premium on Bonds	1,000	
Fund Balance	3,000	
Due to Debt Service Fund		4,000

Entry in debt service fund:

Due from Capital Projects Fund	4,000	
Revenues		4,000

Combined fund balance sheets

As stated previously, the purpose of combined fund balance sheets is to show in a single statement the financial condition of the several funds into which the financial organization of a governmental unit may be divided. An apparent accomplishment of this purpose is sometimes attained by the preparation of what might better be termed a "consolidated balance sheet," in which like items of all funds are consolidated into one amount and the resulting totals are organized into balance sheet form. This arrangement of financial information obscures the fund-entity principle which is vital in governmental accounting. On account of fund restrictions upon the use of assets and the variable nature of fund liabilities and net worth, such a consolidated statement is regarded by many as having little real value. There are, however, two generally accepted forms of combined balance sheets, one being a columnar arrangement and the other a series of vertically arranged balance sheets, one for each fund or type of fund operated by the governmental unit.

Columnar combined balance sheets

A combined balance sheet of the columnar variety may be prepared from the collection of balance sheets of the individual funds or groups of funds. The term "group of funds," as here used, refers to two or more funds of the same type, such as two or more capital projects funds, two or more debt service funds, etc. As explained in the chapters on the individual funds, a single balance sheet may be prepared for all funds of one type, with detailed schedules showing the distribution of financial items to the individual funds. This plan may be used in the same manner when a fund group balance sheet is included in a combined statement.

The conventional form of columnar combined balance sheet includes a listing of each different real account title appearing in the individual fund balance sheets, a listing in a Total column of the combined amount of each item from the several balance sheets, and in vertical columns, one for each

fund or group, the amount of each account or item belonging to that fund. Account titles should be listed, in so far as possible, in their usual balance sheet order. The statement is ordinarily divided into an upper part containing asset and resource accounts and a lower part for liability and net worth accounts. For reasons indicated in connection with the discussion of consolidated fund balance sheets, amounts appearing in the Total column have little or no significance. The chief value of the total figure for each account appears to lie in its service in checking the accuracy of amounts in the individual fund columns; so it would appear that the Total column might be omitted without impairing the statement's value. An example of the columnar combined form appears in Illustration 16–1.

Vertical combined balance sheets

This form of combined balance sheet requires little explanation or discussion. It is essentially a series of fund or group balance sheets in account form, arranged in vertical order. A general heading preceding the first balance sheet and giving the name of the governmental unit, the name of the statement, and the date would suffice for all statements in the combination. However, each individual balance sheet should be preceded by the name of the fund or fund group to which it applies. After the last balance sheet a total may be shown for all amounts on each side, but these totals would be meaningless and may as well be omitted. An example of the vertical form appears in Illustration 16–2.

Comparison of the two forms

Examination of the columnar form of combined balance sheet (see Illustration 16–1) and experience in the preparation of such a form reveal that it has one outstanding advantage and probably two disadvantages or objectionable features:

1. It is advantageous in the compactness of form with which the information is arranged. By the use of smaller type an unusually large amount of information may be presented within a limited scope.
2. One objection to this form is the difficulty of arranging the information in the statement in the form and order usually expected in a balance sheet. For example, fixed assets are usually shown first in a utility balance sheet; whereas fixed assets of an intragovernmental service fund are placed at the bottom of the asset section. Reconciling these conventional differences offers a problem of judgment in setting up a columnar form of statement including the two funds. The desirability of reducing detail leads to other compromises in the handling of valuation allowances. Also, indentions and groupings pose something of a problem.
3. A second objectionable feature of the columnar form is the great number of titles that may appear in the list of accounts and the difficulty of associating the amounts in the fund columns with the titles to which they belong. The arrangement of the information for any one fund is definitely inferior to

Illustration 16-1

TOWN OF AVONDALE

Combined Balance Sheet—All Funds and Groups
December 31, 1969

Explanation	*Total*	*General Fund*	*Capital Projects Fund*	*Special Assessment Fund*	*Intragovernmental Service Fund*	*General Fixed Assets*	*General Long-Term Debt*
Assets and Resources							
Cash	$ 75,000	$18,000	$ 39,000	$ 13,000	$ 5,000		
Taxes receivable (net)	61,000	61,000					
Interest and penalties (net)	7,300	2,700		4,600			
Special assessments receivable	132,000			132,000			
Due from other funds	4,200		1,700		2,500		
Accrued income	400				400		
Inventories	21,300	3,100			18,200		
Bonds authorized—unissued	210,000		210,000				
Amount to be provided for bond payment	400,000						$400,000
Land	41,000				8,000	$ 33,000	
Buildings	$ 145,000				$25,000	$120,000	
Improvements other than buildings	230,000					230,000	
Machinery and equipment	29,000				29,000		
	$ 404,000				$54,000	$350,000	
Less: Allowance for depreciation	18,000				18,000		
	$ 386,000				$36,000	$350,000	
Work in progress	17,000				17,000		
Total Assets and Resources	$1,355,200	$84,800	$250,700	$149,600	$87,100	$383,000	$400,000
Liabilities, Appropriations, Reserves, Contribution, and Fund Balance							
Liabilities:							
Vouchers payable	$ 26,600	$11,300		$ 10,800	$ 4,500		
Accrued expenses	2,100	1,200			900		
Contracts payable	60,600		$ 28,900	31,700			
Contracts payable—retained percentage	21,300		21,300				
Taxes received in advance	700	700					
Due to other funds	4,200	3,400		800			
Serial bonds payable	405,000				5,000		$400,000
Total Liabilities	$ 520,500	$16,600	$ 50,200	$ 43,300	$10,400		$400,000
Appropriations and reserves:							
Appropriations	$ 95,000		$ 10,000	$ 85,000			
Reserve for encumbrances	235,000	$16,500	190,000	21,300	$ 7,200		
Reserve for inventory	3,100	3,100					
Total Appropriations and Reserves	$ 333,100	$19,600	$200,000	$106,300	$ 7,200		
Contribution and fund balance:							
Contribution from general fund	$ 59,000				$59,000		
Fund Balance	59,600	$48,600	$ 500		10,500		
Investment in fixed assets	383,000					$383,000	
Total Contribution and Fund Balance	$ 501,600	$48,600	$ 500		$69,500	$383,000	
Total Liabilities, Appropriations, Reserves, Contribution, and Fund Balance	$1,355,200	$84,800	$250,700	$149,600	$87,100	$383,000	$400,000

exist in one fund that would delay payment to the other, or interfund transactions of an unapproved nature might be concealed by the elimination of the balances. For these reasons, retention of interfund balances is strongly recommended.

QUESTIONS

1. A single balance sheet in which like items of all funds are consolidated into single figures has the valuable attribute of being very compact. Why, then, is the consolidated balance sheet for all funds not used more extensively?
2. Combined balance sheets in columnar or vertical form are common in published financial statements of units of government. What do you think of the value or practicability of combined columnar statements of revenue and expenditures?
3. *a*) State the principal reasons for the use of several funds in the accounts of governmental units.

   b) List five kinds of funds frequently found in the accounting system of a municipality, and discuss briefly the content of each.

   (AICPA)
4. The town of Needmore general fund operates on a calendar-year basis, while one of its debt service funds operates on a July 1–June 30 fiscal year. The general fund makes annual contributions to the debt service fund. In preparing statements for a combined columnar balance sheet for December 31, 1969, should the general fund contribution for 1970 be accrued on the books of both funds?
5. The electric utility fund of Superior City furnishes service, without charge, to city departments and funds. Should accounting records be prepared for this interrelationship, or should it be ignored for accounting and reporting purposes?
6. Some small municipalities operate their electric and water utilities on a more or less joint basis, using the same personnel and to some extent the same facilities. When this practice is followed, should records be combined and consolidated statements be prepared for the two services?
7. A municipal chief executive contends that since he is titular head of all municipal activities, he has authority to transfer assets from one fund to another on a temporary basis, because "it is all in the family." What is the merit, if any, of the mayor's contention?

PROBLEMS

1. Below are given statements of two unrelated transactions, each of which affected the accounts of more than one fund or group of accounts. You are required to make entries in general journal form for recording the effect of each transaction on the various funds and groups. Indicate clearly the fund or group to which each entry relates, and give a brief explanation of each entry.

   (1) *a*) Issuance of $500,000 par value of 4 percent general obligation 20-year bonds was authorized for acquisition of a building.

   b) The bonds were sold on issue date at 102.

c) A formal contract was let for acquisition of a building at a cost of $498,000.

d) A total of $499,500 cash was paid out for the building, including legal and other expenses in addition to the contract price. (Vouchering may be omitted.)

e) Capital projects fund temporary accounts were closed, with the fund balance being shown as due to the debt service fund.

f) The balance of cash was transferred to the debt service fund.

(2) a) A city purchasing agent accepted one of several bids for furnishing a police patrol car, and a contract was made with the successful bidder. The contract called for the payment, by the general fund, of $2,200 cash and the delivery to the dealer of a car then in service.

b) Delivery was received on the new unit; and the old unit, for which the general fund had paid $3,765, was delivered to the dealer. An allowance of $1,760 was received on the trade-in. The purchase was vouchered.

c) The voucher for purchase of the automobile was paid.

2. Below are stated a number of transactions, some of which are related and some not. Each transaction except the first affects the accounts of more than one fund or group. You are required to make all necessary entries for the transactions. Group all entries for each transaction, and show the fund or group to which each entry relates. Explanations may be omitted.

(1) $1,400,000 par value of 4 percent, 10-year general obligation bonds were authorized for construction of a municipal administration building.
(2) The intragovernmental service fund paid preliminary costs of $25,000 for the benefit of the administration building capital projects fund.
(3) The bonds were sold at 98.
(4) The debt to the intragovernmental service fund was paid.
(5) During the first year, capital projects fund expenditures, excluding the amount paid by the intragovernmental service fund, totaled $815,000, and total expenditures were closed at the end of the year. (Only the closing entry is required for this transaction.)
(6) Also during the first year the general fund contributed $75,000 to a debt service fund. The payment had been budgeted by the general fund but was not encumbered.
(7) During the second year, with additional expenditures of $526,000, for which the entry may be omitted, the project was completed. All accounts of the capital projects fund were closed, and the balance of cash was transferred to the debt service fund mentioned in (6).
(8) The debt service fund retired $100,000 par value of serial bonds.

3. The first list below consists of some types of funds it is possible for a municipality to have. The second list contains a number of transactions that occurred in one municipality. List the transaction numbers on a sheet of paper and indicate opposite the number of the transaction the fund or funds (if any) in which each transaction would customarily be recorded. All transactions are to be strictly construed.

TYPES OF FUNDS:

General fund
Special revenue fund
Special assessment fund
Capital projects fund
Intragovernmental service fund
Debt service fund
Trust fund
Agency fund
Enterprise fund

TRANSACTIONS:

(1) City motor vehicle license fees, to be used for general street expenditures, were collected.
(2) An issue of bonds, the proceeds of which were to be used for the erection of a new city hall, was sold.
(3) Real estate and personal property taxes, which had not been assessed or levied for any specific purpose, were collected.
(4) Salaries of personnel in the office of the mayor were paid.
(5) An issue of bonds, to be used to pay for the improvement of streets in the residential district, was authorized. The debt is to be serviced by assessments on property benefited.
(6) Sums of money were received from employees by payroll deductions, to be used for the purchase of United States government bonds for those employees individually.
(7) A sum of money was appropriated, to be advanced from moneys on hand, to finance the establishment of a city garage for servicing city-owned transportation equipment.
(8) A contribution was received from a private source. The use of the income earned on the investment of this sum of money was specifically designated by the donor.
(9) Materials, to be used for the general repair of the streets, were purchased.
(10) Interest was paid on city hall building bonds after construction was completed.
(11) Payment was made to the contractor for progress made in the erection of a new city hall.
(12) Proceeds received from the sale of a bond issue were used for the purchase of the privately owned water utility in the city.
(13) Property taxes, which were designated to be set aside for the eventual retirement of the city hall building bonds, were collected.
(14) The city garage was reimbursed for services on the equipment of the fire and police departments.
(15) Various amounts were paid by property owners for the benefits they received from the street improvement project.
(16) Interest was paid on city hall building bonds before construction was completed.
(17) Interest was paid on bonds issued for the purchase of the water utility.
(18) The water hydrant rental was paid.
(19) Interest was paid on bonds issued for payment of the improvement of streets in the residential district.
(20) Interest was received on the investment of moneys set aside for the retirement of city hall building bonds.

(Indiana State Board of Accounts, adapted)

4. The city of Morgantown entered into the following transactions during the year:

(1) A bond issue was authorized by vote to provide funds for the construction of a new municipal building which it was estimated would cost $3,000,000. The bonds were to be paid in 10 equal installments from a debt service fund, payments being due March 1 of each year. Any balance of the capital projects fund is to be transferred directly to the debt service fund.
(2) An advance of $30,000 was received from the general fund to be used as earnest money on the land contract of $300,000. The earnest money was paid.
(3) Bonds of $2,900,000 were sold for cash at 102. It was decided not to sell all of the bonds because the cost of the land was less than was expected.
(4) Contracts amounting to $2,560,000 were let to Michela & Company, the lowest bidder, for the construction of the municipal building.
(5) The temporary advance from the general fund was repaid, and the balance on the land contract was paid.
(6) Based on the architect's certificate, warrants were issued for $1,280,000 for the work completed to date (not vouchered).
(7) Warrants paid in cash by the treasurer amounted to $1,250,000.
(8) Due to changes in the plans, the contract with Michela & Company was revised to $2,640,000; the remainder of the bonds were sold at 101.

(9) Before the end of the year the building had been completed, and additional warrants amounting to $1,360,000 were issued to the contractor in final payment for the work. All warrants were paid by the treasurer.
(10) Accounts were closed and the fund balance transferred to the designated recipient.

Required:

a) Record the above transactions in Capital Projects fund T accounts. Designate the entries in the T accounts by the numbers which identify the data.

b) Prepare applicable fund balance sheets as of December 31, considering only the proceeds and expenditures from capital projects fund transactions.

(AICPA, adapted)

5. The city of New Arnheim has engaged you to examine the following balance sheet which was prepared by the city's bookkeeper:

CITY OF NEW ARNHEIM
Balance Sheet
June 30, 1969

Assets	
Cash	$ 159,000
Taxes receivable—current	32,000
Supplies on hand	9,000
Marketable securities	250,000
Land	1,000,000
Fixed assets	7,000,000
Total	$8,450,000
Liabilities	
Vouchers payable	$ 42,000
Reserve for supplies inventory	8,000
Bonds payable	3,000,000
Fund Balance	5,400,000
Total	$8,450,000

Your audit disclosed the following information:

(1) An analysis of the fund balance account:

Balance, June 30, 1968		$2,100,000
Add:		
Donated land	$ 800,000	
Federal grant-in-aid	2,200,000	
Creation of endowment fund	250,000	
Excess of actual tax revenue over estimated revenue	24,000	
Excess of appropriations closed out over expenditures and encumbrances	20,000	
Net income from endowment funds	10,000	3,304,000
		5,404,000
Deduct:		
Excess of Cultural Center operating expenses over income		4,000
Balance, June 30, 1969		$5,400,000

Cash:	
For general operations, including $3,000 in petty cash	18,000
Earmarked to investments for bond retirement (represents interest earned over the actuarial estimate)	840
Balance of cash donated by J. Stark, the net income from which is to supplement library operations	12,000
Undistributed balance of cash received from J. Stark investments and apartment rents	3,000
Buildings:	
For general operations	235,000
Apartment building donated by J. Stark on July 1, 1969. Net income is to be used in the operation of the library. Cost of completion to Stark, July 1, 1959, $96,000 (exclusive of cost of land), with estimated life of 50 years, no salvage. Appraised value on July 1, 1969	90,000
Equipment:	
For general use	280,000
Apartment furniture purchased with donated cash, October 1, 1969, estimated life 10 years, no salvage. Cost	36,000
Streets and curbs built by special assessment funds in prior years (all collected). The city contributed one third of the cost	300,000
Land:	
For general use	60,000
For apartment building site	10,000
Supplies:	
For general operation	1,800
For apartment house operation, purchased by income cash	300
Originally purchased for general operation, transferred to and used in library operations; no settlement has been made	2,400
Vouchers payable—for general operations	16,000
3 percent 30-year bonds payable, due on December 31, 1996 (issued for purchase of land, buildings, and equipment)	400,000

List the funds or group titles that would be required for the city on the basis of the above information, leaving at least 15 lines between each title. Under each title, make one summary journal entry that will record all of the required accounts and amounts in the appropriate fund.

(AICPA, adapted)

7. *a*) Rearrange the following balance sheet of the town of Nashville in acceptable form for municipal reporting:

BALANCE SHEET

June 30, 1969

Assets

Current:		
Cash	$ 50,000	
Taxes receivable (including special assessments, $80,000)	100,000	
Supply inventories	10,000	
Investments of trust funds	30,000	$ 190,000
Fixed:		
Land	$100,000	
Buildings	800,000	
Equipment	50,000	950,000
		$1,140,000

Liabilities

Current:		
Accounts payable		$ 10,000
Fixed:		
General obligations bonds payable	$350,000	
Special assessment bonds payable	75,000	425,000
Fund equities:		
General fund	$ 35,000	
Trust funds	40,000	
Capital projects fund	25,000	
Special assessment fund	5,000	
Capital fund	600,000	705,000
		$1,140,000

b) The town of Nashville, for which the balance sheet in part (*a*) was prepared, should use budgetary accounts. You are to prepare the balance sheet for its general fund at the end of its first month of operation in its fiscal year starting July 1, 1969. The following events are to be considered:

(1) A budget was adopted which provided for property taxes of $210,000 for general municipal purposes, and for estimated revenue from fees, etc., of $23,000. Appropriations were $180,000 for current operations, $20,000 for debt service, and $35,000 for street and other capital improvements.
(2) During July, purchase orders of $9,400 were placed, $3,150 of which were received and vouchered at an actual net cost of $3,078. Payroll amounting to $5,185 was vouchered, and $14,000 of accounts payable were paid.
(3) $21,000 of 1968–69 taxes were collected, $18,350 of which were special assessments. Also, $466 of delinquent taxes were collected; these taxes had been written off. Miscellaneous fees, etc., collected amounted to $2,060.
(4) Inventory of supplies at the end of the month was $10,400.

(AICPA, adapted)

8. From the following data concerning the accounts of the city of Milton at September 30, you are required to construct fund or group trial balances in proper form for use in preparing balance sheets at that date. This will require the addition of some account titles, the names and amounts of which you must ascertain from the related information.

(1) Cash on hand amounted to $1,068,173.28, of which $575,587.58 belonged to the general fund, $298,937.92 to the water fund, $56,949.96 to the trust fund, $6,837.91 to the debt service fund, and $166,493.90 to the capital projects fund. The special assessment fund had a cash overdraft of $36,633.99.
(2) Accounts receivable included $247,867.60 in the general fund and $55,116.79 in the water department. A 2 percent allowance had been provided for possible loss.
(3) The general fund had $182,129.04 due from the special assessment fund, and the water fund had $16,382.07 due from the general fund.
(4) Of the completed permanent property recorded on the books, the water department had $3,829,066.12, and $10,875,425.69 represented general property of the city. Composition of the two totals was as follows:

Explanation	*Water Fund*	*General*
Land	$ 67,520.00	$ 285,391.76
Structures and improvements	3,175,329.80	10,326,240.81
Equipment	586,216.32	263,793.12

General fixed assets had been acquired as follows: from the capital projects fund, $5,656,832.19; from the special assessment fund, $3,876,954.23; and from the general fund, $1,246,333.08. The balance had been acquired through miscellaneous gifts.

(5) In the water department, total allowances for depreciation were $1,304,026.31. Of that amount, $1,062,390.52 applied to structures and improvements and the balance to equipment.

(6) Property taxes receivable amounted to $2,546,314.85, of which $2,387,742.42 applied to the general fund and the balance to the debt service fund. An allowance of 3 percent was provided for possible loss on these taxes.

(7) Special assessments receivable totaled $1,769,830.33.

(8) Unexpired insurance premiums totaled $1,655.92 on general city property and $2,863.09 on water fund property.

(9) Interest payable amounted to $9,173.75 in the general fund, $1,438.75 in the special assessment fund, and $4,706.66 in the water fund.

(10) Investments included the following:

Explanation	*Par Value*	*Unamortized Premium*	*Unamortized Discount*
Trust fund...............	$ 16,000	$ 829.08	....
Debt service fund.........	290,000	1,655.04	$1,212.85

(11) Inventories of materials and supplies totaled $81,296.42, of which $13,493.26 belonged to the general fund and $67,803.16 to the water fund.

(12) Of the vouchers payable, the general fund owed $397,203.72; the special assessment fund, $19,713.61; the water fund, $9,157.45; and the trust fund, $3,146.45.

(13) Construction work in progress amounted to $42,285.23 in the water fund and $31,496.20 which had been done by the capital projects fund.

(14) Contracts amounting to $4,367.50 are payable by the general fund and $119,286.40 by the capital projects fund.

(15) Bonds payable included $1,424,000 of special assessment bonds, $1,412,000 of water fund bonds, and $3,666,250 of general bonds. Of the general bonds, $1,780,000 were sinking fund bonds, and the remainder were serial bonds.

(16) The water department had retirement work in progress in the amount of $8,762.39 at this date.

(17) The total assets accumulated for the payment of sinking fund bonds at maturity was $448,627.84.

(18) The water fund had been started by the purchase of a going utility through a contribution from the general government in the amount of $1,264,327.84.

(AICPA, adapted)

Chapter 17

Cash Procedures and Accounting

Because of its high state of liquidity and ease of transfer, cash occupies a preeminent position in the attention of accountants and auditors. Its usefulness to the rightful owners and its attractiveness to others cause it to be widely sought by means usually fair but sometimes foul. Furthermore, possibilities for honest mistakes are numerous in the receipt, custody, and disbursement of cash. Administrators, accountants, and auditors must be constantly alert in their endeavors that only fair or legal methods be used and that loss through error be reduced to a minimum. These observations are no less true of governmental cash than of that belonging to private individuals or enterprises. In fact, the greater separation in government of the ones who pay and the ones who spend, and the need for protection of those by whom government is financed, may constitute an even greater obligation for safeguarding public cash. Although parts of the following discussion may incidentally be applicable to cash in general, special reference is intended to cash of governments.

Requirements for adequate cash accounting

Some elements of desirable cash procedure pertain strictly to cash in one or another of its forms. Other elements may relate not only to cash but also to other financial aspects of the governmental unit concerned. As one example, some cash accounting procedures are closely related to accounting for revenue and expenditures, others to the reduction of noncash assets. It may be said that, in general, adequate cash accounting procedures must include the following:

1. Provision for determining, in so far as is reasonably possible, that the government receives all the cash to which it is legally entitled.
2. Accurate and complete accounting for cash that is received, with some forecasting of cash to be received during a future period.
3. Adequate protection of cash between the time of receipt and the time of disbursement.
4. Accurate and complete accounting for cash disbursed, sometimes supplemented by a schedule of anticipated expenditures during a future period.

An indispensable element of good cash procedure, whatever other safeguards may exist, is a carefully planned and diligently applied system of internal control of the kind discussed in earlier chapters. In addition to the main scheme of internal control, there are numerous other techniques —such as the bonding of all employees handling cash and regular annual audits—which serve to prevent or reveal irregularities; but detailed discussion of these precautions is not appropriate here.

Determining whether all cash that ought to be received is received

One situation permitting a definite, clear-cut comparison between cash that should be received and cash actually received is found in the case of certain governmental revenue which is accounted for on the accrual basis. If one or more units or departments of government are charged with ascertaining and billing a given kind of revenue, whereas another department accounts for collection, the arrangement represents a very desirable form of control over cash. The best illustration of a situation such as the one described above is the prevailing practice and plan of handling the assessment, billing, and collection of property taxes. In one state, for example, assessing and billing are functions of the assessors' and auditors' offices, and collection rests with the treasurer. Because of direct and indirect checks upon taxes reported as unpaid, the possibilities for the diversion of cash collected from taxpayers, without disclosure, is reduced to a minimum. Unfortunately, this control device cannot overcome defects in the assessment procedure which may undervalue property or entirely omit it from the basic inventory. However, this latter deficiency is more of a revenue than a cash problem.

Other forms of governmental revenue activity which lend themselves to the use of an accrual or semiaccrual basis are utility services, some kinds of licenses and permits, revenue from the use of money and property, and revenue from other agencies. Utility services are furnished on a contractual basis; and with the proper use of service, billing, and collection forms, a close degree of correlation between the amount due and the amount received is possible. Many kinds of licenses and permits are granted for privileges to operate at specified locations or within given areas, and failure to obtain a license or permit is readily ascertainable. Assuring that fees arising from licenses and permits will be accounted for is largely a matter of using prenumbered authorization forms, for which strict accounting must be made. Money and property are of such tangible nature that accrual of income for their use and receipt of cash from that source are readily ascertainable through record keeping and the exercise of reasonable care. Also subject to exact verification are receipts from the sale of bonds, from the issuance of notes, and from special assessment levies.

Some forms of revenue do not lend themselves to the use of accrual accounting; but once having reached the realization stage, accurate ac-

counting for the cash to be received is largely a matter of well-organized and well-administered procedures. Thus, it is not possible to determine accurately the amounts of income or gross receipts taxes which each taxpayer should pay; but once the taxpayer has acknowledged his liability by filing a return, or his employer has filed an informational return, there can be close correlation between amounts of cash that should be received and amounts actually finding their way into the treasury. On the municipal level, there is no practicable way of accruing revenue from parking meters; but once the money has been placed in the meter, determination of whether it gets into the bank account is a matter of establishing recognized safeguards around its movement from meter to bank account, that is, at least one check or control at every stage.

The nature of some kinds of revenue or receipts and the manner of collecting them almost defy conclusive accounting for the proceeds. Not only do they not lend themselves to accrual accounting; but for some, it is difficult to determine whether they have been collected and, if so, in what amount. In this category are fines, forfeitures and penalties, some kinds of fees, refunds on disbursements, collection of receivables previously written off, and miscellaneous transactions not formally recorded until cash is received.

In summary, to assure that cash collected will be fully accounted for:

1. The accrual basis of accounting should be used wherever possible, in order to establish liability of some employee or department to account formally for realization into cash of the asset recorded by the accrual.
2. Wherever possible, prenumbered forms should be used as a sort of receipt to be issued to the payer; every one of the numbered forms should be strictly accounted for; and payers should be encouraged to demand a formal, written receipt.
3. A system of internal control or check should be developed with the smallest possible number of weaknesses under the prevailing conditions and circumstances.

A possible flow chart for cash receipts is shown in Illustration 17–1.

After receipt of cash has been made a matter of record, the next step is proper and complete reporting. Since a governmental unit may operate several funds, it is important to determine with certainty and to report the one to which each receipt belongs. Ownership of most cash is ascertainable without difficulty, but some collections may be of such miscellaneous nature that the classification should be settled by someone with recognized authority to decide doubtful cases. Within each fund, it is imperative to indicate the exact credit to be recorded for the cash received. These credits may be to receivables, to revenue accounts for income not previously accrued, to liability accounts, to asset accounts for investments or properties sold, to expenditures accounts for refunds, and to others. Reporting of collections should be done in some prescribed form with supporting documents arranged in a predetermined manner, the entire

Illustration 17–1

FLOW CHART OF RECEIPTS TRANSACTIONS*

Collectors—Other than Treasurer

1. On receipt of money prepare prenumbered general receipt in quadruplicate:
   a) Payer's copy;
   b) Collector's copy;
   c) Treasurer's copy;
   d) Finance officer's copy.
2. Verify collections against receipts issued.
3. Prepare deposit report in duplicate (by source, if more than one type of collection).
4. Turn collections over to treasurer with deposit slips and receipt copies attached plus adding machine tape of collections. Send one copy of deposit slip and receipt copies to chief finance officer.
5. Receive collector's copy of deposit slip stamped "Paid."

Treasurer

1. On receipt of money which he collects directly:
   a) Prepares general receipt in triplicate: payer's, treasurer's, and finance officer's copies.
   b) For collections such as taxes, utilities, etc., where special receipt form is used: assembles all receipt copies and stamps then "Paid."
2. Receives money collected by others. Stamps deposit slip "Paid." Keeps one copy; returns other to collector.
3. Verifies collections against deposit slips and receipt copies.
4. Prepares summary of receipts in duplicate by fund and source. Keeps one copy, sends other to finance officer together with finance officer's receipt copies.
5. Enters receipts in Cash Record by funds and banks.
6. Deposits cash in bank; obtains duplicate deposit slip.
7. Prepares monthly report of receipts.

Chief Finance Officer

1. Prepares journal voucher:
   a) For anticipated revenue when budget is adopted;
   b) For total revenue receivable when due;
   c) For fund and account transfers;
   d) For adjustments.
2. Prepares and mails bills for amounts due.
3. Receives treasurer's summary cash receipt report and copies of receipts. Verifies. → 1. Enters in Cash Receipts Register.
4. Prepares monthly report comparing collections and accruals with budget estimates.
5. Reconciles bank statements and records.

1. Enters in Cash Receipts Register.
2. Totals Cash Receipts Register at end of month.

1. Posts to General Ledger.
2. Posts details to Revenue Ledger.

1. Posts totals to General Ledger.
2. Posts details to Revenue Ledger.
3. Posts to each account affected in subsidiary accounts receivable ledgers (tax ledgers, customer ledgers, etc.).

1. Credits individual accounts receivable.

2. Posts to General Ledger.
3. Posts details to revenue accounts not previously accrued.

* Municipal Finance Officers Association of the United States and Canada, *Simplified Municipal Accounting* (Chicago, 1950), p. 92.

arrangement devised to accomplish accurate and speedy recording of the transactions represented. Cash receipts should be delivered or deposited in total, without reductions for disbursements; but this admonition is sometimes ignored for convenience.

Classification by fund

Techniques and rules for recording cash received by a governmental unit are primarily responsibilities of the accounting department. It is charged with assuring that receipts are distributed to the various funds or activities to which they pertain. In simpler terms, this means that the accounting department must see that each fund or activity gets the cash to which it is rightfully entitled. Concerning the other side of the transaction, the sources from which cash is received must be recorded with accuracy. If it came from individuals or others to whom some charge had been made on a prior occasion, its recording must provide for properly crediting the accounts of those who had previously been charged. If no formal charge had been made, the credit will indicate the revenue or other source from which the collection originated, in order that statements and other financial reports may be prepared.

Media for the recording of cash receipts by the accounting department will normally consist of duplicate copies of receipts, stubs of licenses, etc., issued, but sometimes will consist only of classified summaries of departmental collections. These media may originate in departments, in special cashiers' offices, or in the main office of the treasury itself. Preferably, media and records for cash collections submitted to the accounting department should include not only copies or portions of the underlying document for each transaction but also a formal summarization showing sources and ownership of cash collected. These evidences may be accompanied by one or more copies of a bank deposit slip if the collection was deposited directly by the collecting agency, or by the collectors themselves.

Going a step further in control, some procedures may require formal permission by the controller before the collections may be presented to the treasurer. This permission may be in the form of a pay-in warrant or order, which is basically a formal acknowledgment that the collections and records thereof are accepted and an authorization to the treasury to receive them. One large city requires multiple copies of a "treasury deposit slip" to be presented with departmental collections. If the collections and report are in order, two copies are authenticated to indicate acceptance of the departmental report and approval for transfer of the collection to the treasury.

Two kinds of postings will be made from the media accumulated in the recording and handling of cash receipts. These are postings to detailed accounts and postings to summary or control accounts. Postings to accounts with customers and other debtors, existing in the form of receiv-

ables, may possibly be made from registers or other summaries of cash received; but the better practice seems to be to make postings of this sort from copies of receipts, from stubs, or from other basic evidence of the transaction, with postings to the receivables control being made from a summary of all collections on receivables. Ledgers of customers' accounts may be kept in departmental offices, as for utilities, and detailed postings made there; but generally speaking, most subsidiary ledgers, such as for revenues and expenditures, will be in the general office of accounts. Postings to revenue subsidiary ledger accounts may be made from totals of groups or batches of media representing collections of each kind of revenue. Postings to the Revenues controlling account will be made in the form of some total figure, such as the amount of all revenue collected during the day or possibly month, depending upon the form of original-entry record used.

Custody and protection of cash

As mentioned previously, one device used to protect against loss is the bonding of all employees entrusted with handling cash. To make this safeguard protective to the fullest extent, daily or other frequent checks must be made upon cash in the custody of the individuals bonded. A common practice contributing to this end is the preparation of daily or other periodic cash statements accounting for beginning balances, increases, decreases, and ending balances. Wherever possible, increase and decrease totals should be properly substantiated by documentary evidence —for example, copies of paid warrants for disbursements.

Under some circumstances, variations may exist between cash as shown by the accounting department and cash according to the treasurer's records. Certain transactions may have been recorded by one and not by the other. Accounting for warrants payable is a common source of difference between the two sets of records. Let it be assumed that the accounting department credits Cash to record warrants drawn upon the treasury, whereas the treasurer credits Cash only when a check is issued or when the warrant is countersigned and issued, if the warrant serves as a bill of exchange after signature by the treasurer. At a given time, warrants issued by the accounting department but not yet covered by payments in the treasurer's office would cause the records of cash in the two offices to differ. On the other hand, the accounting department may treat warrants as liability instruments and not credit Cash (and debit Warrants Payable) until evidence of disbursement has been received from the treasurer's office. In this event, warrant payments which have not yet been taken up on the controller's books would cause variance between the two Cash accounts. Thus, in governmental accounting, cash reconciliations must recognize not only deposits in transit, outstanding checks, and other similar causes of difference found in reconciling individual and commercial bank accounts, but also another set of differences in the form of

some consolidation would probably be advisable or even necessary—perhaps a separate bank account for each type of fund, such as general, trust, etc. Different colors of checks can be used to distinguish between disbursements applicable to the several funds participating in the joint account. The exact measure of consolidation or separation to be practiced should be the one which, based on experience, gives maximum accuracy with a minimum of time and effort.

Large municipalities and states have the problem of accounting for cash that is collected in regional, district, or departmental offices and which cannot well be delivered to the main treasury for acknowledgment and deposit. A sound and convenient method for handling such collections is to require them to be deposited daily to the credit of the governmental unit to which they belong. This reduces the danger of loss and also makes the collection promptly available for use by the fund to which it belongs. Multiple copies of receipted tickets should be obtained for these deposits, enough to provide at least one each for the depositing agent, the controller, and the treasurer of the governmental unit represented. Best results are obtained if the controller's and treasurer's copies are mailed to them by the depository.

Cash records

As suggested elsewhere, the form of records used to account for cash in the control of a governmental finance officer is subject to numerous variations; however, at least two requirements are fundamental, as follows:

1. The finance officer's (treasurer's) records must show exactly the amount of cash in his custody. This must include both bank balances and undeposited receipts.
2. The finance officer's records must show the ownership of all the cash in his custody, that is, the amount belonging to each fund.

Charges to his cash accounts and credits to his equity accounts will derive largely from collections turned over for the credit of the funds. Credits to his cash accounts and charges to equity accounts will derive principally from disbursement documents, probably either a warrant for payment presented by the controller, countersigned by the treasurer, and issued to the creditor, or a check based upon a warrant presented by the controller. Another type of change may be an interfund transfer based upon a transfer warrant and not requiring a disbursement document; however, some governmental units require that even interfund settlements be accomplished by a disbursement warrant or check. Although records of the treasurer's office are likely to be more or less simple in form, they must provide for the ultimate in accuracy and be of such nature as to facilitate frequent proving and reporting of funds on hand.

Two kinds of situations may arise to complicate record keeping for the

1. A summary of cash transactions by funds for the year, with an indication of fund equities in the closing balances.
2. A statement showing the composition of the total ending balance.
3. The treasurer's certification.

A good example of such a statement is shown in Illustration 17–3.

It is desirable that summaries of bank balances be supplemented by information to indicate that these balances are fully protected in the event that the depository should experience financial difficulty. The information

Illustration 17–3

CITY OF MIDDLETOWN

TREASURY DEPARTMENT

TO THE CITY AUDITOR:

General statement of accountability of the City Treasurer of the city of Middletown for funds of the said city for the year ended December 31, 1968.

Fund	Balance at January 1, 1968	Receipts for Period	Total for Period	Disbursements for Period	Balance at December 31, 1968
General	$ 911,678.92	$ 6,270,021.11	$ 7,181,700.03	$ 6,341,189.09	$ 840,510.94
Improvement . .	385,373.69	7,181,546.35	7,566,920.04	5,113,228.10	2,453,691.94
School	218,552.07	2,863,286.94	3,081,839.01	2,944,106.91	137,732.10
Pension	4,896.28	54,139.27	59,035.55	54,019.32	5,016.23
Sinking	817,753.98	792,903.89	1,610,657.87	683,868.90	926,788.97
Water	897,187.91	870,094.86	1,767,282.77	992,343.86	774,938.91
Lillian May Cocke	592.60	8.88	601.48		601.48
Federal airport .	50,839.30	31,471.03	82,310.33	58,042.97	24,267.36
1955 annex fund	1,102,818.09	437,192.71	1,540,010.80	1,079,760.11	460,250.69
Total . . .	$4,389,692.84	$18,500,665.04	$22,890,357.88	$17,266,559.26	$5,623,798.62

CERTIFICATE

I hereby certify that the foregoing is a true statement of my accountability to the city of Middletown for the funds of the various accounts thereof for the year ending December 31, 1968, that said foregoing statement is correct; and that to cover the amount of accountability to the said city of Middletown at December 31, 1968, as stated in the foregoing statement, I hold the following:

Cash in hand	$ 11,773.81
Cash in the First National Exchange Bank	2,157,323.25
Cash in the Colonial-American National Bank	395,893.23
Cash in the Mountain Trust Bank	529,594.58
Cash in the Bank of Virginia	380,000.00
Cash in the Liberty Trust Branch—Colonial-American National Bank	50,000.00
Roanoke city bonds	58,000.00
U.S. government bonds, water fund	541,100.00
U.S. Treasury bonds, improvement fund	1,500,000.00
Coupons paid held for warrant	113.75
	$5,623,798.62

H.E. WAHL, *City Treasurer*

Dated January 13, 1969

may be given in various forms. An example of one possible form is shown in Illustration 17–4.

The last one of the treasurer's statements to be mentioned here is a bank reconciliation, in which the treasurer accounts for differences between ending bank balances per his records and ending bank balances per bank statements. This statement has the usual purposes of bank reconciliations: first, to explain normal differences between the two sets of figures; and, second, to bring to light possible variances requiring investigation and possibly other action, such as corrections or adjustments.

Cash reconciliations should also be prepared by the controller. Prior to preparation of his own reconciliations, the controller should be provided with a copy of the treasurer's reconciliation and with reports of bank

Illustration 17–4

VILLAGE OF CLAREMORE
Bank Balances, Insurance, and Collateral
As of February 28, 1969

Explanation	*Balance in Account*	*Date Designated*	*Insurance FDIC*	*Collateral*	
				Amount	*Description*
First National Bank, Two Harbors	$16,910.88	4–4–63	$15,000	$39,400	U.S. bonds
Commercial State Bank, Two Harbors	29,621.03	7–1–65	15,000	50,000	U.S. bonds

balances obtained directly from the depositories themselves. A standard certificate form may be furnished the banks for supplying this information, or copies of bank statements in the conventional form may be utilized. Reconciliations by the controller will likely be somewhat more complex than those prepared by the treasurer because the former must bring into agreement not two balances but three: his own, the treasurer's, and the bank's.

Because of the irregularity of cash receipts and the relatively uniform rate of expenditure, proper financial management of governmental funds dictates systematic forecasting of cash positions. This practice will indicate in advance the probable needs for temporary financing, or it may suggest the possibility of deferring expenditures and thus avoiding the borrowing of funds. One plan of cash forecasting involves a detailed estimate of receipts by funds, followed by a summary taking into account beginning balances and expenditures as well as estimated receipts. An acceptable form for estimating receipts is suggested by Illustration 17–5.

If normal receipts are expected to be insufficient to cover requirements to a given date, the result will be a negative balance, which will be

approximately the amount of financing required from outside the fund. The necessity for a loan may be indicated also by expanding the statement by including the title "Loans Required," which will permit showing

Illustration 17-5

TOWN OF NASHVILLE

General Fund
Statement of Actual and Estimated Receipts for
Year to Date, This Month, and Next Month
August 31, 1969

Class of Revenue	Year to Date: Budget Estimate	Year to Date: Actual	Year to Date: Difference	This Month: Estimated	This Month: Actual	Next Month Estimated
1. Taxes	$46,000	$49,000	$3,000	$ 500	$ 700	$1,300
2. Licenses and permits	2,500	2,100	400*	350	475	950
3. Other classes	17,900	21,300	3,400	2,100	3,050	3,400
Total General Fund	$66,400	$72,400	$6,000	$2,950	$4,225	$5,650

* Deficiency.

formally the amount of borrowing expected to be necessary. Information for preparation of the two statements shown in Illustrations 17-5 and 17-6 will be obtained from pertinent records accumulated for the current year

Illustration 17-6

TOWN OF AVONDALE

All Funds
Forecast of Cash Position for
May, 1969

Item	*General Fund*	*Sewer Fund*	*Other Funds*	*Total*
Cash at beginning of month	$ 18,700	$179,600	$113,200	$311,500
Estimated receipts (see schedule)	99,200	4,200	287,900	391,300
Total	$117,900	$183,800	$401,100	$702,800
Estimated expenditures	21,400	137,000	274,800	433,200
Estimated balance at end of month	$ 96,500	$ 46,800	$126,300	$269,600

to date, from records of actual receipts for comparable segments of the prior year or years, and from other sources which may reflect probable changes from past experience. To illustrate, amounts to be received from other agencies frequently will be announced a considerable time before

the actual payment is made. Such information may foretell a very definite change up or down. Likewise, cash to be received from property tax levies will tend to vary directly with the amounts levied, so changes in amounts of levies should be evaluated in forming estimates of future receipts from that source.

Cash reports on an annual basis for which controllers are responsible include summaries of estimated receipts and disbursements classified by funds and sources; an annual, detailed statement of receipts and disbursements for each fund (or group of funds of a given type); and an annual combined statement of receipts and disbursements for all funds. Estimates of total receipts and disbursements for a fiscal period are essentially a part of the process of budget making and have been referred to in Chapter 2, on that subject. They are prepared along the same lines as cash forecasts for shorter periods (see Illustration 17–6). The annual statement of cash receipts and disbursements for each fund is typically a part of the reporting procedure for individual funds. However, the combined statement of receipts and disbursements for all funds may be regarded primarily as a cash reporting device which assists in rounding out the complete record of the cash that has been available, what has been done with it, and what is left, for correlation with the treasurer's report on his own stewardship of cash.

In preparing the combined statement of cash receipts and disbursements for all funds, the most convenient source of information should be utilized. It is quite likely that statements of cash receipts and disbursements by funds will be found most satisfactory for this purpose, because the combined report will be substantially a condensation of information contained in the individual fund statements. The form of the combined statement may be modified to suit individual preferences and special conditions or requirements but in general will probably follow the pattern of Illustration 17–7.

Illustration 17–7

CITY OF LA CROSSE

Summary of Cash Receipts and Disbursements
For the Year 1969

Fund	*Beginning Balance*	*Receipts*	*Transfers*		*Disbursements*	*Ending Balance*
			In	*Out*		
General fund. .	$ 20,000	$ 500,000		$ 41,000	$ 452,000	$ 27,000
Street fund. . . .	2,000	231,000	$ 18,000		239,000	12,000
Trust funds. . .	12,000	62,000	39,000	7,000	87,000	19,000
Other funds. . .	240,000	872,000	53,000	62,000	761,000	342,000
All Funds.	$274,000	$1,665,000	$110,000	$110,000	$1,539,000	$400,000

Conclusion

The cash procedures described in this chapter represent a few of the many possibilities for cash accounting. Some would be entirely unsuited to use by small units of government, and no attempt should be made to follow them. Others might be adaptable with modifications. Bearing in mind the elusive nature of cash, governmental administrators should adopt the best procedures possible, under prevailing conditions, to make sure that the governmental unit receives all cash to which it is entitled; that cash is fully safeguarded while in the government's possession; and that it is spent for only legal, authorized purposes. These precepts are important for the benefit of citizens and for the protection of public officials as well.

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QUESTIONS

1. Satisfactory accounting for cash from court fines and penalties is a continuing problem for governmental units which have those sources of revenue. Suggest a practicable system which would give acceptable control.
2. Some large governmental units permit managers of branch collecting offices to make deposits in the managers' own names. State three difficulties or complications which might arise from that practice.
3. Sometimes a governmental unit with a limited amount of cash will endeavor to "window-dress" its liabilities at the end of a fiscal period by writing and recording checks in payment of the liabilities, but will hold the checks until a later date, thus avoiding a bank overdraft. Would you consider such checks as outstanding in preparing a bank reconciliation? If you were an outside auditor charged with preparing correct financial statements for the governmental unit, what would you do about the situation described?

4. What is the purpose of an imprest or petty cash fund? Describe the method of operating such a fund.
5. A common procedure for collecting parking meter receipts includes the following operations:
   a) Collections are made by an unattended policeman equipped with a sizable container.
   b) The meter is opened, the coin receptacle removed, and its contents poured into the policeman's container.
   c) The container is taken to police headquarters for emptying, sorting, and counting.

   Comment on the acceptability of the internal control.
6. Bank service charges are customarily deducted from each depositor's account. If state law requires a municipality to prepare a warrant for each expenditure, how can the city treasurer adhere to the law and conform with banking practice?
7. A governmental unit has recently abandoned the practice of requiring public officers and employees who handle cash, or are responsible for handling it, to be bonded. Enumerate reasons in favor of the action of this governmental unit; enumerate reasons why the bonding practice should have been retained.
8. *a*) State in a general way what disposition should be made of the Cash Short and Over account in financial statements of a governmental unit.
   b) Is the disposition of the Cash Short and Over account any more difficult for a governmental unit than for a commercial enterprise?
9. The cash procedures system of a municipality provided for signing of cash disbursement warrants by its chief accounting officer, with countersigning by the treasurer before issue. Accustomed to being absent from his office a great deal, the treasurer followed the practice of signing his name to a number of blank warrant forms, so that his absence would not delay payment of creditors. Comment on this practice.
10. In the process of preparing a prenumbered warrant to be issued by the treasurer's office as a disbursement instrument, an error was made, and a substitute warrant was prepared. What disposition should have been made of the first document?
11. Some governmental accounting systems require a pay-in warrant or other authorization before cash receipts are formally accepted from a collection agency or office. What is the purpose of that requirement?

PROBLEMS

1. Heltonville's accounting system provides for the controller to approve all vouchers that are to be paid and to enter them in a voucher register. When time for payment of the debt arrives, the controller issues a warrant or order to pay, sends the voucher and related warrant to the treasurer, and changes the liability to Warrants Payable. Upon receipt of payment advices from the treasurer, the controller records payment. The controller also records receipts of cash.

   Show in general journal form, without explanations, the entries which

should have been made on the controller's books for the following transactions which occurred during November:

(1) Approval of voucher No. 2120 for personal services, $35,000.
(2) Warrant No. 2701 issued for voucher No. 2120.
(3) Payment advice received for warrant No. 2701.
(4) Collection of current taxes previously accrued, $7,050.
(5) Approval of voucher No. 2121 for contractual services for October, $1,180. The transaction had been encumbered for $1,100.
(6) Approval of voucher No. 2122 for purchase of office machines, $791. The purchase had been encumbered for $775.
(7) Warrant No. 2702 issued for voucher No. 2118, approved in October, for $3,005.
(8) Parking meter receipts, $2,434.
(9) Payment advice received for warrant No. 2702.
(10) Approval of voucher No. 2123 for purchase of uniforms for Police Department, $640. This transaction had been encumbered for $650.
(11) Warrant No. 2703 issued for voucher No. 2122.
(12) Collection of delinquent taxes previously accrued, $726.
(13) Payment advice received for warrant No. 2703.
(14) Warrant No. 2704 issued for voucher No. 2119, approved in October, for $5,120.
(15) Payment advice received for warrant No. 2704.
(16) Parking meter receipts, $1,327.
(17) Approval of voucher No. 2124 for a previously recorded judgment of $3,225.
(18) Collection of property taxes not due until next year, $104.

2. Below is given a collection of information about cash balances, receipts, and disbursements of certain funds of the town of Smithville:
On March 18, cash balances of the funds were as follows:

Current fund	$ 93,600
Construction bond fund	283,851
Stores and service fund	21,780
Special assessment fund No. 86	53,312

Cash receipts on March 19 were as follows:

Current fund:	
Taxes	$ 9,576
Parking meter receipts	217
License fees	12
Revenue from other agencies	5,207
Construction bond fund:	
Sale of bonds	48,000
Refund by supplies vendor	10
Stores and service fund:	
Payment of amount due from current fund	529
Special assessment fund No. 86:	
Current assessments	6,885
Delinquent assessments	420
City's share of cost	10,200
Interest on assessments	456

Cash payments on March 19 were as follows:

Current fund:	
Payments for personal services	$ 2,850
Payment for commodities bought on account	1,650
Payment of bond interest	2,400
Payment of amount due to stores and service fund	529
Remittance of withholding tax	876
Construction bond fund:	
Payroll	10,200
Contracts payable	110,000
Accounts payable	9,861
Cash purchase of construction supplies	162
Stores and service fund:	
Heat, light, and power	219
Payment for supplies bought on account	4,660
Cash purchase of supplies which are accounted for on a perpetual inventory basis	240

You are required to do the following things (use one cash account):

a) For each fund, prepare a compound entry for March 19 cash receipts.

b) For each fund, prepare a compound entry for March 19 cash disbursements.

c) Prepare a treasurer's daily cash report for all funds.

3. All disbursements of the city of Bedford are made on warrants issued by the controller and countersigned by the treasurer. The controller records all disbursements as credits to Cash at the time the warrants are issued. Since the warrants become bills of exchange upon being countersigned, the treasurer records cash disbursements as such at the time he countersigns the warrants. On May 31, the controller's books showed the following balances:

General fund	$112,600
Intragovernmental service fund	10,200
Capital projects fund	94,300
Debt service fund	12,000

The balances according to the treasurer's books were as follows:

Explanation	*First National Bank*	*Lawrence National Bank*	*State Trust Company*
General fund	$115,260		
Intragovernmental service fund		$10,322	
Capital projects fund			$98,327
Debt service fund			12,000

A separate bank account is kept for each fund. The bank statements showed the following balances on May 31:

First National Bank	$117,131
Lawrence National Bank	10,859
State Trust Company (capital projects fund)	106,165
State Trust Company (debt service fund)	12,136

The treasurer reports that the following countersigned warrants have not been returned by the bank:

General fund:	
No. 1702	$ 937
1712	489
1714	1,825
1717	715
1718	220
Intragovernmental service fund:	
No. 2431	42
2440	125
2442	283
2443	94
Capital projects fund:	
No. 3674	3,500
3680	740
3684	1,285
3686	375
3687	2,460
Debt service fund:	
No. 4128	820
4131	392
4133	540
4134	260

The following warrants have been issued by the controller but have not been countersigned by the treasurer:

General fund:	
No. 1720	$2,200
1721	300
1722	160
Intragovernmental service fund:	
No. 2444	75
2445	47
Capital projects fund:	
No. 3688	1,450
3689	870
3690	1,707

The following deposits, made on May 31, did not appear on the bank statements:

General fund	$3,200
Capital projects fund	1,500
Debt service fund	2,000

Certain items on the bank statement had not been recorded on the books, as follows:

Interest credited by the bank:	
General fund	$903
Capital projects fund	978
Debt service fund	124
Exchange charges by the bank:	
General fund	18
Intragovernmental service fund	7

You are required to do the following things:

a) Prepare a schedule of outstanding warrants and one of warrants issued by the controller but not countersigned by the treasurer. Totals from these schedules are to be used for requirements (*b*) and (*c*).

b) Prepare a reconciliation in which the bank balance for each fund is reconciled to the treasurer's balance for each fund, which, in turn, is reconciled to the controller's balance for each fund.

c) Prepare a three-part reconciliation in which the balance per bank statement for each fund is reconciled to the actual cash balance, the balance per treasurer's books is reconciled to the actual cash balance, and the balance per controller's books is reconciled to the actual cash balance.

4. Stated below in summary form are the Ohio County highway fund transactions to account for a special tax distribution from the state:

(1) Upon receipt of an estimate from the state auditor's office that Ohio County's share of the distribution would be $2,678,000, the county council appropriated that amount on April 15, 1969.

(2) On May 7 the first installment of $1,339,000 was received.

(3) Receipts during succeeding months of the year were as follows:

June	$187,040
July	161,620
August	105,390
September	130,110
October	116,530
November	509,300
December	101,180

(4) The record of vouchers certified and warrants issued was as follows:

Month	*Vouchers Certified*	*Warrants Issued*
July	$791,860	$780,670
August	251,410	250,010
September	271,040	276,370
October	163,550	161,140
November	972,100	970,090
December	187,150	181,350

(5) Warrants paid by the treasurer were as follows:

July	$776,010
August	250,880
September	275,120
October	162,330
November	170,850
December	980,250

You are required to do the following things:

a) Record the above transactions of the highway fund on the books of the controller.

b) Assume that the treasurer kept a record of warrants received and warrants paid and of cash received and disbursed, and record such of the foregoing transactions as affect the treasurer's records. For this purpose, you may use T accounts for Warrants Payable and for Cash.

c) Prepare a statement reconciling the controller's cash and the treasurer's cash at December 31, 1969.

d) Prepare a balance sheet of the fund, after closing, for December 31, 1969.

5. The city of Sycamore operates on an accrual basis with respect to both revenues and expenditures. It maintains two bank accounts at the First National Bank, one for the general fund and one for the enterprise fund. You are asked to prepare from the following data (*a*) a statement reconciling the balances per the bank with the balances of cash for each fund per the controller's books on December 31, before any correcting entries are made; and (*b*) the journal entries necessary to correct the controller's records, assuming books had been closed.

(1) Balance per bank statement: general fund, $50,000; enterprise fund, $28,000.

(2) The bank made service charges of $50. Of this amount, $20 was chargeable to the general fund and the remainder to the enterprise fund. These charges have not been recorded by the city.

(3) The following checks were outstanding:

General fund:	
G114	$ 115
G115	200
G116	300
G117	150
Enterprise fund:	
U901	50
U902	5
U903	65
U904	1,000

(4) Check G108 was for $100 but was recorded in error on the controller's books as $110 because the voucher payable was for that amount.

(5) On December 30, the treasurer wrote check G112 for $53 in payment of a voucher chargeable against the enterprise fund. The controller caught this error and corrected it on his books, but the check had already been cashed. To date, no action has been taken on this matter.

(6) Checks G116 and G117 were written on December 31. Check G116 was mailed on that day, whereas check G117 was not mailed until January 5. Both were recorded by the controller as December disbursements.

(7) Owing to an oversight, general fund money received on December 31 ($250 from taxes receivable, $50 from fines, and check U904 described below), was not recorded until its deposit on January 5. The total deposit on that day—which included also January receipts—was $2,000; and the entire amount was recorded as a January receipt on the controller's books.

(8) Check U904 is a payment in lieu of taxes made to the general fund and turned over to that fund on December 31, but not put through for collection by the general fund until January5. [See item (7) above.]

(9) Enterprise accounts receivable in the amount of $300 were collected on December 31, and reflected on the records, but were not deposited until January 2.

(Municipal Finance, adapted)

6. The General Medical Institute is a nonprofit corporation without capital stock which accounts for its activities in a single fund. Its comparative financial statements follow:

GENERAL MEDICAL INSTITUTE

Comparative Statement of Revenues and Expenses for the Years Ended October 31, 1968 and 1969

	1969	*1968*	*Increase (Decrease)*
Revenue from services rendered:			
Services to patients	$360,000	$304,000	$ 56,000
Less free services	36,000	38,000	(2,000)
Net revenue from services rendered	$324,000	$266,000	$ 58,000
Operating expenses:			
Departmental expenses:			
Medical services	$ 32,700	$ 29,300	$ 3,400
Medicine and supplies	14,600	10,500	4,100
Nursing services	89,900	76,200	13,700
Therapy services	34,300	31,300	3,000
Dietary	40,700	37,100	3,600
Housekeeping and maintenance	37,300	29,500	7,800
Administration and other	33,700	23,400	10,300
General expenses:			
Rental of leased premises (net)	...	3,100	(3,100)
Depreciation—building and equipment	9,900	8,300	1,600
Provision for uncollectible accounts	5,400	3,500	1,900
Interest expense	6,500	...	6,500
Loss on sale of equipment	2,000	...	2,000
Other	16,200	6,500	9,700
Total expenses	$323,200	$258,700	$ 64,500
Excess of revenues from services rendered over expenses of patient care	$ 800	$ 7,300	$ (6,500)
Other income (expenses):			
Research	$(13,300)	$(13,200)	$ (100)
Gain on sale of investments	18,600	3,500	15,100
Investment income	16,500	13,300	3,200
Contributions	10,300	14,800	(4,500)
Grant from government designated for expansion	335,000	...	335,000
Miscellaneous	2,700	1,500	1,200
Total other income	$369,800	$ 19,900	$349,900
Excess of Revenues over Expenses	$370,600	$ 27,200	$343,400

GENERAL MEDICAL INSTITUTE

Comparative Balance Sheets
October 31, 1969 and 1968

Assets	*1969*	*1968*	*Increase (Decrease)*
Cash	$ 28,600	$ 18,500	$ 10,100
Accounts receivable—patients (net)	75,500	55,500	20,000
Investments (cost)	413,100	463,100	(50,000)
Prepaid expenses	2,200	1,600	600
Land, building, equipment (net)	327,200	333,700	(6,500)
Construction in progress	793,800	...	793,800
Total Assets	$1,640,400	$872,400	$768,000
Liabilities and Fund Balance			
Liabilities			
Accounts payable—construction	$ 110,800	...	$110,800
Less: Receivables from government agencies	80,000	...	80,000
Accounts payable—construction (net)	$ 30,800	...	$ 30,800
Accounts payable—current operations	11,800	$ 10,200	1,600
Mortgage payable	365,000	...	365,000
Total Liabilities	$ 407,600	$ 10,200	$397,400
Fund balance:			
Balance, January 1	$ 862,200	$835,000	$ 27,200
Excess of revenues over expenses for year	370,600	27,200	343,400
Balance, December 31	$1,232,800	$862,200	$370,600
Total Liabilities and Fund Balance	$1,640,400	$872,400	$768,000

The audit working papers contain the following additional information:

(1) Accounts Receivable—Patients are stated at the net of the Allowance for Bad Debts account, which amounted to $10,000 at October 31, 1968 and $14,600 at October 31, 1969. During the year bad debts totaling $800 were written off.

(2) The research activities are net of research grants aggregating $10,000. Included as a research expense is depreciation of $6,600 on special research equipment.

(3) During 1969 the construction of a new building was begun. The estimated cost of the building and equipment is $1,000,000. The expansion is being financed as follows:

Grant from government	$ 335,000
Mortgage (repayment to begin upon completion of building)	500,000
Special features installed at the request of government agencies and to be paid for by the agencies	80,000
Institute's available funds	85,000
Total	$1,000,000

(4) New therapy equipment costing $15,000 was purchased in 1969 and replaced therapy equipment with a book value of $5,000 which was sold for $3,000.

(5) To obtain additional cash working capital, investments with a cost of $50,000 were sold during July.

Prepare a statement accounting for the increase in cash for the year ended October 31, 1969, to be included in the annual report of the General Medical

Institute. The statement should set forth information concerning cash applied to or provided by:

a) Operations.
b) Research activities.
c) Acquisitions of assets.
d) Other sources of funds.

(AICPA, adapted)

Chapter 18

Accounting for Public Schools

The prevailing general concept of "public schools" is that the term embraces all publicly supported education through grade 12. The growth of junior or community colleges, financed mostly by public money, has given a new meaning to the term. Conforming to the newer practice, in this chapter "public schools" will encompass not only public education through 12th grade but also that beyond, provided that the institution offers less than four years of instruction and does not grant a baccalaureate degree. However, primary attention will be given to schools below the collegiate level.

Accounting for public schools is not a procedure unique and separate from all other subject matter in this book. On the contrary, it consists largely of the selective application of many things that are expounded in the preceding and following chapters. It is different with respect to form, emphasis, terminology, etc., from some of the conventional applications of fund accounting, but not markedly so. It is difficult to imagine how a public school system could possibly require an enterprise fund or a special assessment fund, but all the other types of funds and the two nonfund groups of accounts have potential applicability, yet in varying degrees of frequency. Indispensable to public school accounting are the revenue funds, general and special; and, because of the scope and volume of noninstructional activities, debt service, intragovernmental service, capital projects, and trust and agency funds. It is important to note that these are *classes* of funds.

Accounting for public schools is considered to be worthy of a chapter in this text for two main reasons:

1. The amount of public money being dedicated to education and the immeasurable importance of obtaining results of superior quality from its use dictate the need for financial management of the highest quality.

2. Supervision of public schools being vested in laymen, mostly with no formal accounting training, it seems beneficial to bring about a more widespread acquaintance with at least the fundamentals of managing and accounting for public school financial affairs.

GENERAL FEATURES OF PUBLIC SCHOOL ACCOUNTING

Purposes of public school accounting

Depending upon the degree of elaboration, the purposes of public school accounting may be few or many. For present requirements they will be described in three general statements, each of which might be amplified into a number of subordinate purposes. The three are:

1. To assist in the administration of public school resources, to the end of producing maximum private and public benefit from the services offered.
2. To assist in compliance with all laws and regulations pertaining to the use of money and other assets received from local, state, and federal sources.
3. To provide school officials with adequate information for full and accurate reporting of their stewardship of the public school system, to (*a*) the public, (*b*) students of education, and (*c*) governmental agencies.

Originally the sole responsibility of local communities, public schools have now evolved into a joint project of state and local government, with growing participation by the federal government. This tripartite arrangement magnifies the importance of the second purpose stated above, but the first is paramount.

Nature of accounting for public schools

In an earlier paragraph the division of public school finances into funds was mentioned. Some other comparisons with noneducational accounting procedures are as follows:

1. School financial affairs are, in the main, controlled through the use of budgets; the major exceptions consisting of the operations of trust and agency, and working capital or intragovernmental service, funds.
2. Consistent with other uses of the fund system, the cash basis, the accrual basis, and the modified (accrual) basis, all may be found. A purely conjectural supposition would be that the last-named prevails.
3. The same *kinds* of accounts (budgetary and proprietary) used for nonschool governmental accounting are adapted to school accounting, but with numerous differences in *names*.
4. Many of the same kinds of reports used in nonschool accounting are found in the public school procedures.
5. Some school systems employ single entry procedures and some double entry, but the latter is recommended for best results.
6. Although excess of revenue over expenditures, or the reverse thereof, is significant for comparative purposes in school accounting, the former is no more sought after than in nonschool governmental accounting, and the latter, unless extraordinarily large, is no more a matter of great concern.

The literature of public school accounting

Due to the large scale on which states participate in financing local schools, it is not surprising that they exercise extensive control, through

printed instructions and statutory law, over the financial recording and reporting practices of the units receiving their support. In one state all school financial activities, except those related to extracurricular affairs, are required to be accounted for and reported on state-prescribed forms. Between this and complete local autonomy there are doubtless many different combinations and degrees of state and local control and supervision of accounting and reporting. In addition to state and locally generated instructions about public school accounting, there exists a considerable body of material about public school accounting in textbooks and scholarly publications in the professional field of education. Federal aid to education is bringing increasing participation of the federal government in molding school accounting and reporting procedures.

Four fairly recent publications of a comprehensive but differing nature in the field of public school accounting are *Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts,*[1] *Principles of Public School Accounting,*[2] *Public School Fund Accounting Principles and Procedures,*[3] and *Uniform System of Accounts for School Districts, Double-Entry Basis.*[4] The first is confined to consideration of receipt and expenditure accounting, whether by single or double entry; the second and third are of a more general nature, relating to the application of fund accounting practices to all the financial affairs of public schools; and the fourth is a manual for a specific state. A further contribution of far-reaching importance to better public school accounting and reporting was the 1964 promulgation by the Association of School Business Officials of a body of school accounting principles and procedures which had been adopted by that highly influential body.[5] Although there exists a sizable volume of material on public school accounting, the remainder of this chapter will reflect extensive reliance upon the references named above.

In the remainder of this chapter the discussion will relate to the general processes of accounting and reporting, usually with little attention to minor details. This policy will be followed because most of the related particulars have been covered in earlier chapters and do not merit repetition at this stage. Answers to questions about a given type of school

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[1] U.S. Department of Health, Education, and Welfare, Office of Education, State Educational Records and Reports Series: Handbook II, Bulletin 1957, No. 4 (Washington, D.C.: U.S. Government Printing Office, 1962).

[2] U.S. Department of Health, Education, and Welfare, Office of Education, State Educational Records and Reports Series: Handbook II–B (Washington, D.C.: U.S. Government Printing Office, 1967).

[3] Sam B. Tidwell (New York: Harper & Bros. 1965).

[4] State of New York Department of Audit and Control, Division of Municipal Affairs (Albany, 1965).

[5] Association of School Business Officials of the United States and Canada, *50th Annual Volume of Proceedings, Addresses, and Research Papers* (Chicago, 1965), pp. 280–82.

system fund should be sought by reference to the chapter about the same kind of fund as employed for nonschool purposes.

OUTLINE OF PUBLIC SCHOOL ACCOUNTING

Expenditure accounts

Purposes of expenditure accounts. The major financial responsibility of public school administrators is to make the best possible educational use of the public money entrusted to their management. From this it follows that perhaps the one most important requirement of a school accounting procedure is a set of accounts and reports showing how money was managed or spent. This information serves a twofold purpose:

1. It provides for full and accurate *reporting* to those concerned with how money invested in education is used.
2. It is a basis for *increasing the effectiveness of* future spending, that is, improvement of management.

In a technical sense, expenditure accounts as a class are probably more important than any other group of school-related accounts, even though the others are indispensable for best results. While all school costs must be financed ultimately from revenue, the kinds, sources and amounts of revenue available are far less manageable than are expenditures, and therefore, far less controllable through administrative decisions.

Classification of expenditures. Since "schools" (or "education") is, in itself, one of the generally recognized functions of government, the major classification of public school expenditures is by activity: "activity" as used here being one of the classes of things done in performance or discharge of a functional responsibility. Twelve kinds of activity are recognized by the United States Office of Education:[6]

Administration
Instruction
Attendance and health services
Pupil transportation services
Operation of plant
Maintenance of plant
Fixed charges
Food service and student-body activities
Community services
Capital outlay
Debt service from current funds
Outgoing transfer account

All the above names of activities are virtually self-explanatory except "outgoing transfer account," that title referring to the expenditures connected with transfer of pupils to some other school district.

Each activity class is divided (in the Office of Education manual) into subclasses which may be divided and subdivided. For illustration, "in-

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[6] U.S. Department of Health, Education, and Welfare, Office of Education, *Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts, op. cit.*, pp. 27–35.

struction" is divided into five subclasses, one of which is "salaries." That classification is divided into six subclasses, and one of those, "other instructional staff," is divided into five titles. It may be worthy of note at this point that ideally, the more spent for instruction in relation to all other activities, the more commendable the expenditure program. Normally costing probably 90 percent of the public school dollar at the turn of this century, instruction now heavily shares school revenues with the annual costs of other responsibilities (transportation, health service, etc.) assumed by the public school system.

Revenue accounts

Purposes of revenue accounts. Public schools are financed by what the U.S. Office of Education describes as "receipts," which include money from sources commonly designated as "revenue" and, in addition, proceeds of some transactions of a nonrevenue nature.[7] The purposes of revenue accounts are similar but not identical to the purposes of expenditure accounts and are as follows:

1. To provide for full and accurate reporting to those interested in knowing the sources from which public schools are financed.
2. To provide a basis for planning for future revenue requirements, especially by revealing revenue sources not fully utilized at present.

Classification of revenue accounts. The major classes of receipts recommended by the U.S. Office of Education are as follows:[8]

Revenue receipts:
- Revenue from local sources.
- Revenue from intermediate sources.
- Revenue from federal sources.

Nonrevenue receipts:
- Sale of bonds.
- Loans.
- Sale of school property and insurance adjustments.

Incoming transfer accounts:
- Amounts received from other school districts in the state.
- Amounts received from school districts in another state.

It is important to note that the expenditure and revenue classifications described above are applicable to school *systems* and that while conceivable, it is highly unlikely that either (expenditure or revenue) classification would be required in total, with no exceptions, for any one *fund*. Thus, it is clear that in establishing a new fund for a school system or overhauling an old one, only those titles required to describe the fund's receipt and expenditure transactions will be drawn from the two lists.

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[7] *Ibid.*, p. 8.

[8] *Ibid.*, pp. 9–20.

The receipts classification described above is very similar, but not identical, to the conventional revenue classifications employed by non-school governmental units. The one kind of receipt which could not possibly be correlated with revenue is the proceeds of a loan, or any other debt contract which the recipient fund will be required to repay. On the other hand, money received by a fund from loans, bond issues, etc., technically constitutes revenue if repayment is to be made by some other fund.

Since public schools serve only the "schools" function of government, it follows that all revenue of a school system is *special* revenue with respect to the entire governmental unit (city, county, etc.). However, since all schools require administration to direct their special activities, the result may be a school system general fund and one or more school system special funds—for instruction, transportation, housekeeping, and so on. On the other hand, the three activities mentioned may be financed and accounted for through the general fund. As a general rule, the ratio of accounts employed to the amount of money administered by a school special revenue fund is relatively low. This means that because a school special revenue fund normally serves only a limited range of activities, its need for account titles is likewise limited. A good example of such a fund is a transportation fund, related to transportation of pupils on a contractual basis, with vehicles owned by the drivers or other private persons. Even for a school-owned-equipment operation the number of accounts required is not great.

Fund structures

Kinds of funds used. Due to the diversity of conditions under which the thousands of public school systems operate and the variety of state and local laws and regulations affecting them, the fund structures in use represent a wide range of combinations. As for other kinds of governmental units, this is a situation strongly influenced, but not predominantly so, by size of the school organization.

There are six types of funds which are useful for public school management and control purposes:

General (or current, or operating).
Special revenue.
Capital projects.
Debt service.
Working capital, or intragovernmental services.
Trust and agency.

In addition to the six classes of bona fide funds, some school units employ two groups of accounts which do not qualify as funds. These are the general fixed assets and the long-term debt and interest, or capital indebtedness, groups.

General and special revenue funds. Use of the general fund, by whatever name it is designated, may be either broadly inclusive or somewhat restricted. In one state it provides for administration, instruction, health, guidance, transportation, housekeeping (maintenance and operation of plant), and some other less conspicuous services. In other states some of these responsibilities are delegated to special revenue funds. In some states statutory restrictions upon the use of revenue from certain sources are combined with the requirement of a special revenue fund to account for receipt and use of the revenue. A similar requirement is common for federally provided revenue.

Capital fund. In recent years capital improvements for school systems have assumed such magnitude that the use of special funds to account for their financing has become a practical necessity. Due to widespread and almost exclusive use of bonds for financing public improvements in earlier years, the related funds were called bond funds; but present-day financing of local school capital improvements is shared in so heavily by the state and federal governments that a capital projects, or capital improvements, caption seems more descriptive. Such a fund is actually a combined bond and revenue fund. Obviously, if total financing were derived from sale of bonds, the bond fund title would be more descriptive.

Debt service fund. In the event that a school system chooses or is required to accumulate assets for future payment of principal and interest on long-term debt, a special fund would be helpful in accounting for receipt and disbursement of the assets. This type of fund, formerly referred to in most cases as a sinking fund, has recently been given the more descriptive name of debt service fund. Its major function is to facilitate budgeting and accounting for required revenues and expenditures for debt service purposes.

Working capital, revolving, or intragovernmental services fund. Working capital, revolving, or intragovernmental services funds is the name given to those employed to account for, and conserve, an amount of asset value set aside to provide equipment or other assets for some special activity outside the main operations of other funds. The common uses of intragovernmental services funds by local government were described in a previous chapter. Two school activities which may be accounted for advantageously by use of intragovernmental services funds are a central purchasing and supply service and a service department for transportation of pupils. One of the authorities relied upon extensively for this chapter recommends the intragovernmental services fund structure for use in management of a school lunch program, but the other two incline towards use of the special revenue structure. In a later part of this chapter, a school lunch program is used to illustrate a special revenue fund, primarily because an intragovernmental services type fund is especially adapted to use for transportation service and will be explained in that connection.

Trust and agency funds. School systems frequently find themselves

serving in the capacity of trustee or agent for the custody and administration of assets of which they do not have outright ownership. As explained in an earlier chapter, the distinction between a trust fund and an agency fund has little significance for accounting purposes, but school organizations are frequently trustees for numerous award funds; and as employers they act as an agent for withholdings, sometimes in sizable amounts, from the pay of faculty, administration, and maintenance employees.

Account groups

Well-managed school systems should make use of two other accounting and reporting devices which are similar to funds but, as explained in earlier chapters, do not technically qualify as such. Although they may be found under various names, they are actually the long-term assets and long-term debt and interest groups. As used here, long-term assets should exclude those owned by intragovernmental services or trust funds. Accounting procedures for these groups when employed by school systems are similar to those required for the same account groups maintained by the general government.

ACCOUNTING AND REPORTING PROCEDURES

Introduction

As is true in the sphere of governmental accounting generally, it is not always possible to make specific classification of some funds employed in public school accounting. Also as in accounting for general government, this is not a matter for special concern. The authorizations and limitations under which a given fund is required to operate determine its accounting procedures. Exact classification of a fund is helpful but not indispensable.

In the remainder of this chapter will be discussed the accounting and reporting procedures (statements) for most of the kinds of funds which school systems are likely to need. It is recognized that in individual school systems, varying degrees of alteration may be necessary. The procedures to be discussed in the next several pages are not intended to be ironclad but flexible.

One policy which will be assumed for all funds is use of the double entry system of recording financial transactions, because that is the only existing *system* of bookkeeping and accounting—meaning, it is the only scheme of recording financial information in which every entry in an account is systematically related to an entry or entries in some other account or accounts. Single entry recording is still practiced in some states, but it is safe to say that practices in no two of those states are alike. Single entry is whatever the person in authority says it shall be. Procedures employed in single entry school financial accounting do not lend themselves to generalizations but must be controlled by specific, detailed instructions.

In the discussion and illustrations which follow, many of the accounts employed are intended to be controlling accounts for detailed accounts in subsidiary ledgers. Controlling accounts and subsidiary ledgers are especially useful in accounting for and reporting revenues and expenditures.

General fund

Some basic entries. The budgetary entry for a school system general fund is not fundamentally different from that for the general fund of any other kind of governmental unit: recording estimated resources and authorized expenditures for a given fiscal period. If the two amounts are unequal some sort of a balancing account, frequently Fund Balance, must be debited or credited. Resources may be shown in one general account, supported by subsidiary ledger accounts, or in two or more estimated revenue accounts (for different classes of revenue), each supported by subsidiary ledger accounts. A slight variation of the conventional budgetary entry when part of the appropriation total must be financed from assets carried over from the prior year is:

Estimated Revenues	900,000	
Appropriated Fund Balance	10,000	
Appropriations		910,000

The debit to Appropriated Fund Balance shows the fund balance as a resource and gives a slightly better reporting than comes from the conventional debit to Fund Balance. Due to the fact that school systems ordinarily do not collect revenue in a new school year as rapidly as costs are incurred, it is necessary that an amount of cash or other current assets be carried over from one school year to the next, to supplement revenue received in the earlier portion. In one state this is called a working balance, without any formal reservation; but in another it is formally established, for one class of schools, when the tax levy and other revenue charges are recorded, by a credit to Reserve for Planned Balance. For the following year the amount in this reserve is included in Estimated Revenues. At the beginning of the new year it is recorded as revenue by the following kind of entry, amount assumed:

Reserve for Planned Balance	150,000	
Revenues		150,000

Realization of school revenues, by charges to the expected sources (taxpayers, and state, federal, and other governmental units, etc.) or collection in cash, may be recorded in various ways depending upon the exact conditions prevailing. If total collections are to be retained by the general fund, the conventional credit to Revenues (and subsidiary ledger accounts) is called for. However, if the general fund is to serve as an agent for collecting and distributing revenues for other funds or governmental units, the realization entry must include accounts for recording the liability or liabilities to the other participant or participants. An entry for

joint participation in a revenue charge or collection might be as follows, using assumed amounts:

Taxes Receivable—Current	950,000	
Due to Other Funds		150,000
Due to Other Governmental Units		75,000
Allowance for Uncollected Taxes		20,000
Revenues		705,000

Use of "uncollected" instead of "uncollectible" in the third credit account title signifies emphasis upon the fact that the taxes merely have not been collected, rather than being uncollectible, although the account is used partly as a substitute for the conventional Estimated Uncollectible Taxes Receivable. Administration of the tax levy and settlement is probably simplified by having the general fund serve as agent for the other participants (as in the preceding entry), compared with the use of separate agency funds for the two other participants.

If the amounts of revenue to be received from other governmental units (local, state, and federal) are ascertainable to a reasonable degree of accuracy, they may be formally accrued, if desired, or recorded only upon collection. Coming from only a small number of sources, in sizable amounts, they pose no problem of record keeping. On the other hand, taxes receivable require more frequent attention, which can be provided best if they have been formally recorded. If considerable amounts of state and federal aid are due but not received at the end of a fiscal year, they should be accrued, for the benefit of more accurate financial statements. Collections of school revenues, directly or from receivables, are recorded in the conventional manner, frequently with the segregation of cash (as will be explained elsewhere).

Expenditure procedures of a school system general fund are not materially different from those employed for general government. Encumbrances are recorded when commitments of funds are made, and reversed upon conversion of the commitment to an expenditure or upon cancellation. Expenditures may be associated with cash disbursements (debit Expenditures, credit Cash) if not prohibited by law or regulation, or with the recording of a liability for making a payment (debit Expenditures, credit Vouchers Payable), particularly if the expenditure control is based upon a voucher system.

Accounting for encumbrances outstanding at the end of a fiscal year may be established by state law or other regulation. One approved procedure is as follows:

1. Close the outstanding encumbrances to Fund Balance, leaving the same amount in Reserve for Encumbrances to be included in the year-end balance sheet.
2. At the beginning of the next fiscal period, reestablish the encumbrances in the accounts by a debit to Encumbrances and a credit to Fund Balance.

3. Make an entry supplementing (2), by a debit to Appropriated Fund Balance and a credit to Appropriations. This entry should be preceded by formal action by the school system governing body, which action recognizes the proposed expenditures as legitimate charges for the current year, and therefore obviates the necessity for any further special attention.

Commonly used account titles. To assure that cash intended or required for special purposes will be available when most needed, some school systems practice segregation of cash. Although the common preference is for the smallest possible number of cash accounts, segregation of cash may be mandated by state law. One state school system accounting manual provides for seven different divisions of general fund cash: Cash; Petty Cash; Cash from Budget Notes; Cash for Tax Anticipation Notes; Cash for Revenue Anticipation Notes; Cash for Bond Interest and Matured Bonds Payable; and Cash, Repair Reserve. It is possible that all but the first two are prescribed by law. It will be noted that the third account listed is for cash *from* a certain source and, therefore, to be used for a certain purpose or purposes specified in the authorization to issue the notes; while the three accounts listed next are *for* payment of three different kinds of borrowing liability, possibly required as protection to creditors. The seventh of the special cash accounts represents the funding of a reserve for repairs, to assure that liquid assets will be available to make repairs promptly when needed. The special cash account for repairs may be supplemented by Investments, Repairs, the result of a policy of seeking income from segregated funds.

School systems may have a variety of receivables accounts. The more common of these are Taxes Receivable (both current and delinquent), Accounts Receivable, State and Federal Aid Receivable, Due from Other Funds, and Due from Other Governmental Units. In some states property taxes levied for school support are collected by the county, which distributes the proceeds to the various school corporations, thus sparing the schools the work of accounting for and collecting the taxes. In the event that revenues were being accounted for on the accrual basis, Due from Other Governmental Units could be used to record the school's share of a general tax levy.

A school system general fund may own securities—representing temporary investment of otherwise idle cash, or they may be held as funding of a reserve for repairs, or other sensitive reserve. In a manner described in an earlier chapter, year-end inventories of materials and supplies may be recognized for financial statement purposes, reporting the amount as an asset, with a reserve of the same amount shown in the Reserves and Balance section of the balance sheet.

From the nature of a typical school system financial program, certain kinds of liabilities are common in the general fund structure. This group includes Vouchers (or Accounts) Payable, Due to Other Funds, Due to

Other Governmental Units and, if expenditures are accounted for on the accrual basis, Accrued Expenses.

Borrowings of school corporations bring about other liability accounts such as Tax Anticipation Notes Payable, Revenue Anticipation Notes Payable (or just plain Notes Payable), Bond Interest and Matured Bonds Payable, and Budget Notes Payable. Tax anticipation notes have been explained elsewhere, and Revenue Anticipation Notes Payable requires no special discussion. Both of these liabilities arise from the necessity of anticipating cash which will be realized later, in the normal course of events.

Bond Interest and Matured Bonds Payable represents the current maturity of bonds payable, plus bond interest payable within the current fiscal period. If the school system operates a bonded, or long-term, debt and interest group of accounts, the amount of interest and principal payable in each period would be canceled in the bonded debt and interest group and recorded in a debt service fund (or other fund making the payment), approximately at the beginning of the period.

Budget Notes Payable is a title employed in one state to describe borrowing for emergency or other situations provided for inadequately or not at all in the budget of the fiscal period. In effect, the authorization to issue this special type of debt constitutes an additional appropriation, to be financed directly by short- or medium-term borrowing, rather than from revenue of the present year. Authorization of this form of liability is formally recorded by debiting Budget Notes Authorized and crediting Appropriations. The action which gives rise to Budget Notes Payable is not an anticipation of cash expected in the normal course of events of the current year, but rather an authorization to borrow against the next or second next year's budget. The action also gives additional authority to spend.

School systems may have occasion to employ bona fide reserves, and also what were formerly called reserves but are now called "allowances" or some similar title. Bona fide reserves are segregations of equities which would otherwise be recorded in Fund Balance. Some true reserves, segregations of fund balance, are Reserve for Encumbrances, Reserve for Inventory of Materials and Supplies, and Reserve for Repairs—and possibly others. Any allowance, provision, estimate, or reserve for loss of receivables is not a true reserve but rather a valuation factor, to be shown in a balance sheet as a deduction from the asset to which it relates. One state employs the title "Reserve for Uncollected Taxes (or Receivables)" as a valuation account for recording the estimated amount which will not be received from amounts shown as receivable.[9] This is not the same as the

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[9] This procedure classifies collection failure as a reduction of revenue rather than an increase of cost; as failure to collect a debt imposed by law, and therefore a reduction of revenue, rather than inability to collect for goods or services delivered to a vendee. This distinction is somewhat theoretical, though logical.

"Reserve for Uncollected Taxes Receivable" account discussed in earlier chapters.

The balance of the Fund Balance account of a school system general fund may mean different things, depending upon the accounting policies adopted by the system's governing body. For illustration, failure to provide a reserve for encumbrances, a reserve for inventory of material and supplies, or a reserve for any other segregated assets, causes Fund Balance in the balance sheet to show more than the amount of funds which would be available for financing additional appropriations, or for reducing the amount of revenue required to be raised in the ensuing year. What the balance of the account actually means in a ledger or financial statement ordinarily must be judged by the accountant on the basis of the accounting procedures employed by the fund to which the balance relates.

An illustrative problem. To demonstrate approved accounting methods for some of the *typical* financial transactions of a school system general fund, a beginning trial balance, a series of transactions and entries, and an ending trial balance are illustrated in the next few pages. Infrequent or unusual transactions will be omitted because of the wide variety of such transactions in all the states and, therefore, the limited applicability to any one state.

Illustration 18–1

TRENTON CONSOLIDATED SCHOOLS

General Fund

After Closing Trial Balance, December 31, 1968

	Debit	*Credit*
Cash in bank	$ 30,710	
Petty cash	200	
Cash for tax anticipation notes	6,820	
Cash for bond interest and matured bonds payable	15,900	
Allowance for uncollected taxes—current year		$ 41,630
Taxes receivable—overdue*	56,700	
Allowance for uncollected taxes—prior years		15,070
Accounts receivable	600	
Due from other funds	3,215	
State and federal aid receivable	18,870	
Due from other governmental units	905	
Temporary investments	40,650	
Vouchers payable		19,265
Tax anticipation notes payable		7,480
Bond interest and matured bonds payable		15,900
Due to other funds		750
Due to state teachers' retirement system**		13,890
Reserve for encumbrances		9,040
Fund balance		51,545
	$174,570	$174,570

* Includes both prior years' taxes and those of the current year, 1968, which, by the end of the year, had become delinquent.

** Represents amounts withheld from teachers' pay or to be contributed by school system.

Transactions and entries for the year, both in summary form, were as follows:

1. The annual budget for fiscal 1969 was recorded, with $993,000 estimated revenues and $1,017,000 appropriations.

Estimated Revenues	993,000	
Appropriated Fund Balance	24,000	
Appropriations		1,017,000

(Subsidiary ledger accounts would be shown for Estimated Revenues and Appropriations.)

2. Encumbrances which had been closed to Fund Balance at the end of 1968 were reestablished and the required amount was appropriated as a supplement to the 1969 annual budget.

Encumbrances	9,040	
Fund Balance		9,040
Appropriated Fund Balance	9,040	
Appropriations		9,040

(That some 1968 encumbrances had been closed at the end of that year is evidenced by the presence of Reserve for Encumbrances in the December 31 trial balance, without an Encumbrances account. The encumbrances closed were for 1968 commitments. The new debit to Encumbrances establishes them as 1969 transactions, having the approval of the current year's legislative body.)

3. The allowance for uncollected 1968 taxes was transferred to the prior years' allowance.

Allowance for Uncollected Taxes—Current	41,630	
Allowance for Uncollected Taxes—Prior Years		41,630

4. 1968 taxes payable in 1969 were levied in the amount of $489,000, of which $55,000 was designated for other funds and $23,000 for other school systems. Allowance for loss was $39,000 and the balance was revenue.

Taxes Receivable—Current Year	489,000	
Due to Other Funds		55,000
Due to Other Governmental Units		23,000
Allowance for Uncollected Taxes—Current Year		39,000
Revenues		372,000

(This entry classifies uncollectible taxes as a revenue reduction rather than a loss.)

5. The amount due for bond principal and interest at the end of 1968 was paid.[10]

Bond Interest and Matured Bonds Payable	15,900	
Cash for Bond Interest and Matured Bonds Payable		15,900

6. An encumbrance was recorded for the total amount of contracted salaries for the year. (This transaction is optional but it may assist in keeping expenditures for personal services within the amount budgeted for that purpose.)

[10] The accounting manual upon which the problem was patterned pays bonded debt and interest from the general fund, rather than from a debt service fund as recommended in Chapter 7. That was general practice before the National Committee on Governmental Accounting approved the debt service fund in 1968.

Encumbrances	786,000	
Reserve for Encumbrances		786,000

7. The amount charged to other funds during the year was $11,600 and to the state and federal governments on the basis of announced allocations, $499,-600. Other charges were to other governmental units for students transferred in, $87,600, and to sundry debtors for minor amounts of revenue, $7,900.

Due from Other Funds	11,600	
State and Federal Aid Receivable	499,600	
Due from Other Governmental Units	87,600	
Accounts Receivable	7,900	
Revenues		606,700

8. Commitment documents (purchase orders, contracts, etc.) issued during 1969 for normal expenditures other than contractual salaries included $28,010 for personal services; $119,630 for equipment; $29,760 for transfers of students to other school systems; $30,580 for utilities and other contractual services; and $11,030 for various other expenses.

Encumbrances	219,010	
Reserve for Encumbrances		219,010

9. Tax anticipation notes payable of the preceding year were paid, using the cash segregated for that purpose, plus the necessary additional amount from general cash.

Tax Anticipation Notes Payable	7,480	
Cash for Tax Anticipation Notes		6,820
Cash		660

(This transaction might have been vouchered before payment.)

10. To qualify for a special educational program the school board enacted a resolution to issue $50,000 face value of budget notes for financing purchase of the necessary equipment.

Budget Notes Authorized	50,000	
Appropriations		50,000

11. Orders for some of the additional equipment were issued in the amount of $11,650.

Encumbrances	11,650	
Reserve for Encumbrances		11,650

12. Cash collections for the year, other than from budget notes, included $9,660 from other funds; $444,000 from current year's taxes; $12,690 from overdue taxes; $7,400 from accounts receivable; $493,650 from state and federal aid; $86,390 from other governmental units; and $1,510 from interest on temporary investments.

Cash	1,055,300	
Due from Other Funds		9,660
Taxes Receivable—Current Year		444,000
Taxes Receivable—Overdue		12,690
Accounts Receivable		7,400
State and Federal Aid Receivable		493,650
Due from Other Governmental Units		86,390
Revenues		1,510

13. All the budget notes authorized were discounted at an annual rate of 5 percent. They were payable six months after date of issue.

Cash from Budget Notes	48,750	
Expenditures	1,250	
Budget Notes Payable		50,000

$$\$50{,}000 - \frac{\$50{,}000 \times 5\%}{2} = (\$50{,}000 - \$1{,}250) = \$48{,}750$$

14. $24,300 of overdue taxes receivable were classified as uncollectible during the year and written off in compliance with applicable laws.

Allowance for Uncollected Taxes—Prior Years	24,300	
Taxes Receivable—Overdue		24,300

15. All temporary investments were sold for a net amount of $40,950, which included gain and a small amount of accrued interest.

Cash	40,950	
Temporary Investments		40,650
Revenues		300

16. Except for those already reported in previous transactions, expenditures for the year totaled $1,013,280. Of that amount, $51,830 was credited to the state teachers' retirement system and the remainder was vouchered. These expenditures included reimbursements of the petty cash fund. Encumbrances related to these same expenditures totaled $1,006,910, the remaining expenditures being for miscellaneous unencumbered costs. Of the expenditures total, $10,000 was for land, $151,000 for buildings, and $37,000 for equipment, all for general purposes.

Reserve for Encumbrances	1,006,910	
Expenditures	1,013,280	
Encumbrances		1,006,910
Vouchers Payable		961,450
Due to State Teachers' Retirement System		51,830

17. $49,040 cash was paid to the state teachers' retirement system:

Due to State Teachers' Retirement System	49,040	
Cash		49,040

(Vouchering of this payment is omitted for the purpose of conserving space. If permitted by law, this withholding might be administered with other withholdings such as those for FICA payments, federal income taxes, etc., in one or more agency funds.)

18. Payments on vouchers payable totaled $972,320, of which $6,070 was paid from budget note proceeds.

Vouchers Payable	972,320	
Cash from Budget Notes		6,070
Cash		966,250

19. $50,000 was paid to other funds and $22,000 to other governmental units.

Due to Other Funds	50,000	
Due to Other Governmental Units	22,000	
Cash		72,000

(Vouchering of this summary transaction was omitted to save space.)

20. A budgeted payment of $10,000 principal and $300 interest on bonds, to be paid in 1969, was recorded as due. These items had been encumbered in the exact amounts. The required amount of cash was segregated from general cash.

Reserve for Encumbrances	10,300	
Expenditures	10,300	
Cash for Bond Interest and Matured Bonds Payable	10,300	
Encumbrances		10,300
Bond Interest and Matured Bonds Payable		10,300
Cash		10,300

21. Unpaid current year taxes were transferred to the overdue taxes account.

Taxes Receivable—Overdue	45,000	
Taxes Receivable—Current Year		45,000

22. The Reserve for Uncollected Taxes—Prior Years was reduced by an amount such that total provision for tax losses would equal total unpaid taxes.

Reserve for Uncollected Taxes—Prior Years	6,690	
Revenues		6,690

(The credit to Revenues represents excess provision for uncollectible taxes, which resulted in an understatement of revenues. Required adjustment may be calculated as follows:)

Sum of allowances for unpaid taxes beginning of year ($41,630 + $15,070)	$56,700	
Added during year (transaction 4)	39,000	
Total	$ 95,700	
Written off against allowance	24,300	
Balance of allowance, end of year, before adjustment		$71,400
Taxes receivable, beginning of year	$ 56,700	
Added during year (transaction 4)	489,000	
Total	$545,700	
Collected or written off during year ($444,000 + $12,690 + $24,300) (transactions 12 and 14)	480,990	
Balance of unpaid taxes, end of year		64,710
Reduction of allowance required to make it equal to unpaid taxes		$ 6,690

Some of the transactions conducted by the imaginary Trenton Consolidated Schools general fund would, in actual practice, affect another fund for which an entry would be required. The technique of recording such transactions was expounded in Chapter 16.

If the foregoing entries were posted to a ledger with the beginning balances as shown in the December 31, 1968, after-closing trial balance (Illustration 18–1) the result would be the December 31, 1969, trial balance shown in Illustration 18–2.

Illustration 18–2

TRENTON CONSOLIDATED SCHOOLS

General Fund

Trial Balance, December 31, 1969

	Debit	*Credit*
Cash	$ 28,710	
Petty cash	200	
Cash from budget notes	42,680	
Cash for bond interest and matured bonds payable	10,300	
Allowance for uncollected taxes—current year		$ 39,000
Taxes receivable—overdue	64,710	
Allowance for uncollected taxes—prior years		25,710
Accounts receivable	1,100	
Due from other funds	5,155	
State and federal aid receivable	24,820	
Due from other governmental units	2,115	
Vouchers payable		8,395
Budget notes payable		50,000
Bond interest and matured bonds payable		10,300
Due to other funds		5,750
Due to other governmental units		1,000
Due to state teachers' retirement system		16,680
Reserve for encumbrances		8,490
Fund balance		60,585
Estimated revenues	993,000	
Budget notes authorized	50,000	
Appropriated fund balance	33,040	
Appropriations		1,076,040
Encumbrances	8,490	
Expenditures	1,024,830	
Revenues		987,200
	$2,289,150	$2,289,150

In the after-closing trial balance of Trenton Consolidated Schools at December 31, 1968, there were no accounts referred to as prepaid or accrued revenue or expenditures. This indicates the fund was not being operated on the full accrual basis. However, absence of those kinds of accounts, and the use of various receivables accounts and a vouchers payable account, identify the accounting basis as modified accrual (or cash.) The particular degree of modification employed in this instance obviates the need for year-end adjusting entries, except for taxes receivable and their related allowances (transactions 21 and 22).

Closing entries for Trenton Consolidated Schools at December 31, 1969 should follow the general plan of such entries for any revenue fund controlled by a budget. However, consideration must be given to the special account titles Appropriated Fund Balance and Budget Notes Authorized. Neither is based upon revenue expected to be received in the current year. One authorized use of assets from a prior year. The other established a liability which indirectly reduced Fund Balance. Both should be closed into that account.

Closing of the nominal accounts of the Trenton Consolidated Schools may be accomplished in one compound entry, as shown in Illustration 18-3.

Illustration 18-3

TRENTON CONSOLIDATED SCHOOLS

General Fund

Closing Entries, December 31, 1969

Appropriations	1,076,040	
Revenues	987,200	
Fund balance	46,120	
Estimated revenues		993,000
Budget notes authorized		50,000
Appropriated fund balance		33,040
Encumbrances		8,490
Expenditures		1,024,830
To close balances of nominal accounts into Fund Balance.		

After the closing entries have been posted, a trial balance of the schools' general ledger would resemble the before-closing trial balance at December 31, 1969, except that all nominal accounts would be absent and the Fund Balance account would show a balance of $14,465, rather than the before-closing amount of $60,585. Trial balance totals would be $179,790.

Statements

Balance sheets, statements of revenue, statements of expenditures, statements of cash receipts and disbursements, and statements of changes in fund balance are the most common kinds of general financial reports used for school system general funds. Source and application of funds statements are useful for supplementing and explaining the revenue and expenditures statements. Since a general fund balance sheet at the end of a period shows only the residue of an annual financial program, it carries less importance than the same kind of a statement of a business enterprise. Much of what the commercial enterprise has to work with during the ensuing year is shown in its balance sheet, but the right to receive both private and public support is not reflected in a school system general fund statement of financial condition at the end of a given year, because the support is not available until the following year.

Balance sheet. A balance sheet is more informative if it compares conditions at the ends of two consecutive periods. A portion of such a statement for the ends of 1968 and 1969 is shown below (Illustration 18-4).

To save space, the Liabilities and Fund Balance section to complete the above partial balance sheet are not being shown. For those sections, the

Illustration 18–4

TRENTON CONSOLIDATED SCHOOLS

General Fund
Comparative Balance Sheet
December 31, 1969 and 1968

			Increase–(Decrease)	
Assets	*1969*	*1968*	*Amount*	*Percent*
Cash	$ 28,710	$ 30,710	$ (2,000)	(6.5)
Petty cash	200	200	...	...
Cash from budget notes	42,680	...	42,680	...*
Cash for bond interest and matured bonds	10,300	15,900	(5,600)	(35.2)
Taxes receivable—overdue	$ 64,710	$ 56,700	$ 8,010	14.1
Reserve for uncollected taxes—current year	$ 39,000	$ 41,630	$ (2,630)	(6.3)
Reserve for uncollected taxes—prior years	25,710	15,070	10,640	70.6
Total reserves	$ 64,710	$ 56,700	$ 8,010	14.1
Accounts receivable	$ 1,100	$ 600	$ 500	83.3
Due from other funds	5,155	3,215	1,940	60.3
State and federal aid receivable	24,820	18,870	5,950	31.5
Due from other governmental units	2,115	905	1,210	133.7
Temporary investments	...	40,650	(40,650)	(100.0)
Total Assets**	$115,080	$111,050	$ 4,030	3.6

* Cannot be calculated because base year amount was 0.
** Does not include taxes receivable because they are counterbalanced by the two "reserves."

arrangement of titles and amounts would follow the scheme illustrated above. Although not approved by all producers and users of comparative financial statements, placing information for the later year (or period) nearer to the item titles carried the authority of prevailing practice.

Statement of changes in fund balance. Statements of changes in fund balance of a revenue fund are found in a number of forms, some simple and some more complicated as well as possibly more informative. A simple form of such a statement (Illustration 18–5) will show why the fund balance of Trenton Consolidated Schools general fund declined from $51,545 to $14,465 during 1969.

Although of some importance as part of a complete statement of responsibility, it is doubtful that the statement of changes in fund balance has any more than nominal value for administrative purposes. Ordinarily it would have little meaning to a school administrator or trustee not possessing a special knowledge of accounting.

Statement of cash receipts and disbursements. Statements of cash receipts and disbursements for school system general funds should follow the general pattern of such statements for revenue funds, but with account or item titles appropriate to sources of school system receipts and purposes of disbursements. In general these should conform rather closely

Illustration 18-5

TRENTON CONSOLIDATED SCHOOLS
General Fund
Statement of Changes in Fund Balance for 1969

Fund balance, December 31, 1968			$ 51,545
Add:			
Reestablishment of encumbrances outstanding at December 31, 1968		$ 9,040	
Excess of appropriations over expenditures and outstanding encumbrance, December 31, 1969:			
Appropriations	$1,076,040		
Expenditures and encumbrances	1,033,320	42,720	
Total additions			51,760
Total beginning balance and additions			$103,305
Deduct:			
Excess of appropriations over estimated revenues:			
Appropriations	$1,076,040		
Estimated revenues	993,000	$83,040	
Excess of estimated over actual revenues:			
Estimated revenues	$ 993,000		
Actual revenues	987,200	5,800	
Total deductions			$ 88,840
Fund Balance, December 31, 1969			$ 14,465

Illustration 18-6

Comparative Statement of Cash Receipts and Disbursements
February and Fiscal Year to Date, 1969 and 1968

	1969		*1968*	
Items (or other heading)	*February*	*Year to Date*	*February*	*Year to Date*
Balance at Beginning	$470,000	$490,000	$455,000	$476,000
Receipts:				
Taxes—current year	$ 30,000	$ 58,000	$ 27,000	$ 53,000

(This form is continued through both the receipts and disbursements sections and concludes with a showing of cash balances at the ends of the periods covered by the statement.)

to revenue source titles and expenditure account titles. Statements of this sort are not of major importance, but when prepared on a "this month and year to date and same month last year and year to date" basis (Illustration 18-6) they assist in controlling cash flow and in construction of cash budgets for subsequent years.

Revenue Statements. Revenue statements of a school system may take any one of a number of forms: estimated for year and actual, year to date; given month and year to date, consecutive years; and year to date, consecutive years, with changes in amounts and percentages—to mention a few. A partial illustration of the last form of statement is shown below, using sources and classes from a published manual.

Illustration 18–7

Comparative Statement of Revenues
1969 and 1968 to Date
January 1 to February 28, 1969 and February 29, 1968

Sources and Classes	1969	1968	Increase–(Decrease) Amount	Percent
Real property taxes:				
Real property taxes	$1,966,070	$1,733,180	$232,890	13.4
Nonproperty taxes:				
Taxes on consumer utility bills	$ 46,300	$ 43,220	$ 3,080	7.1
Admissions and dues tax	17,590	18,610	(1,020)	(5.5)

If revenues are recorded on a strictly cash basis, considerable similarity will exist between revenues and cash receipts for a given period. Any use of the accrual basis introduces a degree of variation between cash receipts from a given class of revenue and actual earnings from the same class. In Illustration 18–7 the large amount of real property taxes shown for the first two months indicates use of the accrual basis. Revenue statements are valuable both for current management of revenue and for planning revenue budgets for future periods.

Expenditures statements. Statements of expenditures are definitely the one most important kind of report in the statement repertory of school administrators. Responsible for complying with many laws and regulations affecting expenditure of educational funds, and striving for most effective use of money dedicated to the benefit of the school population, school officials require different kinds of expenditure statements in discharging their duties. School expenditure statements may relate to time periods, to educational programs, to locations (schools), to activities (transportation, instruction, etc.), comparison of estimated and actual, and other matters of interest to school board members.

It is not advisable to illustrate, in this chapter, more than one of the types mentioned, for which purpose the time period type will be employed (Illustration 18–8). However, with the great amount of financial information that most school systems are required to record, it is possible for a competent and imaginative accountant to devise numerous kinds of reports which will assist school administrators in the critical appraisal and control of expenditures. For this purpose it is certain that reports showing the progress of expenditure programs *during* the periods to which they relate are the most useful.

There are a few general observations which seem appropriate to school system revenue fund statements and, to some extent, to statements of nonrevenue funds:

1. They should be clear and concise, preferably confined to a single page.
2. They should be presented promptly after the date or period to which

Illustration 18–8

Comparative Statement of Expenditures by Activity and Object Amount Expended Year to Date Compared with Amount Budgeted. January 1 to February 28, 1969 and February 29, 1968

	1969		*1968*		*% Expended*	
Activities and Objects	*Annual Budget*	*Expended to Date*	*Annual Budget*	*Expended to Date*	*1969*	*1968*
Instruction:						
Salaries—certified ...	$1,970,000	$237,000	$1,769,000	$203,100	12.0	11.8
Salaries—substitute	96,950	1,650	83,120	1,170	1.7	1.4
Other objects..........	604,320	76,310	589,060	61,060	12.6	10.4
Total instruction . .	$2,671,270	$314,960	$2,441,180	$270,330	11.8	11.1
Transportation:						
Salaries...............	$ 683,190	$ 98,450	$ 501,870	$ 74,990	14.4	14.9
Purchases of buses.....	118,030	106,380	61,250	60,040	90.1	98.0

they apply; oral or written explanations may give a clearer understanding of formal statements.

3. Details of items in the main statements should be reported in separate schedules, if information about details is considered useful.

4. The comparative form of most financial statements is superior to the single date or period form because it helps to disclose trends of progress or retrogression.

5. Few, if any, financial statements are self-explanatory, but must be interpreted by the user or some other person competent to do so, if maximum benefit is to be derived from them.

Other kinds of funds

Space does not permit a lengthy presentation of the other types of funds and two groups of accounts used by school systems. Furthermore, the general nature and operations of these kinds of funds and the two account groups has been explained in other chapters. The information given there has overall applicability to the special funds of school systems, recognizing that some account titles will be peculiar to school affairs and that some kinds of transactions relate especially to public schools.

Special revenue funds. Special revenue funds are employed by school systems to account for a variety of things, some of which are payment of teachers' and administrators' salaries, accounting for transportation costs, accounting for school plant maintenance costs, operation of a public library, and operation of a school lunch program. A fairly accurate generalization about funds of this type is that they are instrumentalities established to provide better control over receipt and expenditure of revenue dedicated to some special purpose. Except for those representing relatively small amounts of money they should be operated under a formally recorded budget. Being in the revenue category, it follows that

they may be reported by using the same kinds of statements as the general fund. Mostly, the statements will contain much less information than their general fund counterparts and some may be omitted, such as statements of revenue and expenditures which, if prepared, would duplicate the information contained in a statement of cash receipts and disbursements.

The account structure of one common type of school system special revenue fund, a school lunch fund, is shown in the following imaginary trial balance (Illustration 18–9) before closing entries have been made. It is somewhat different from the trial balance of an ordinary revenue fund.

Illustration 18–9

TRENTON CONSOLIDATED SCHOOLS

School Lunch Fund
Trial Balance, December 31, 1969

	Debit	*Credit*
Cash	$ 1,600	
State and federal aid receivable	150	
Food inventory, December 31, 1968	2,000	
Accounts payable		$ 500
Fund balance		3,050
Revenues		206,500
Expenditures	206,300	
	$210,050	$210,050

Two significant observations may be made about the fund represented by the preceding trial balance:

1. Absence of budgetary accounts indicates the fund is not controlled by a formally recorded budget. This may be explained by the fact that the fund exists to serve all the members of the school community who desire its service and that with careful management it is largely, if not entirely, self-financing through the service it renders. Formal budget restrictions upon the amount of expenditures of the fund possibly would hamper its efforts to give all the service needed.

2. Revenues and Expenditures are controlling accounts, the details of which are very important for management of the fund's financial operations. For illustration, it is important to know what part of revenue is from sales of lunches, how much from other food sales, from general fund support, surplus food, state aid and other sources. Important details of Expenditures are personnel costs, purchases, maintenance costs, supplies, etc.

The conventional revenues and expenditures statement of a revenue fund should be supplanted, for this fund, by an operating statement of the business-for-profit type, showing operating income by classes, cost of sales in detail, operating expenses in detail, other revenue (if any) and other expenses (if any), concluding with an excess of revenues over costs, or the reverse if that was the result of the year's operations. This form of

statement, by comparing sales and cost of sales, and showing operating costs separate from cost of sales, gives a better analysis of costs than would be provided by the usual revenues and expenditures statement organization of information.

The arrangement described above for a school lunch fund may be employed, possibly in greater simplicity, for a school store fund operated as a service of the school system.

Federal aid fund. The massive growth of federal aid to local schools, with the accompanying regulations and restrictions, has created a need for another kind of special revenue fund. The meticulous accounting and reporting required for federal grants makes it inadvisable to try to provide the necessary information within the structure of a fund or funds used for other purposes. The type of federal aid serviced by a federal aid fund is that granted for instruction, counseling, guidance, training, etc. Aid for construction or acquisition of facilities, equipment, etc., should be accounted for in a capital projects fund.

One characteristic of federal aid for service is that it is granted on a project, rather than a period, basis. No great need exists for annual financial statements for a federal aid project or for closing the accounts of a specific project until it is completed. Federal aid projects may begin or end at any time of year. A single fund using the kinds of account titles appropriate for general fund accounting and reporting may be utilized for all service projects and programs supported in whole or in part by federal aid. Distinction between, and identification of, encumbrance and expenditure accounts and transactions by project may be accomplished by adding the project number to the conventional functional and object of expense designations, in a manner somewhat as follows:

Estimated Revenues		17,000	
Federal aid—migrant children	17,000		
Appropriations			17,000
FAMCA Project 133:			
Personal services	11,000		
Contractual services	2,000		
Materials and supplies	4,000		

To record approval of federal aid project for migrant children, and appropriation of amount to be received.

In the illustration the usual account numbers have been omitted, but whatever account numbers are prescribed by the school system accounting manual will be used. To those for encumbrances and expenditures will be added the project number. Thus, assuming that the letter F is used to designate all federal aid fund transactions and that the Appropriations account is numbered 850, the complete code of the subsidiary ledger account for the Personal Services entry shown above would contain the following elements:

F—for federal aid fund.
850—for appropriations general ledger account.
100—to indicate personal services.
FAMCA Project 133—to show the particular project to which the $11,000 is chargeable.[11]

As is apparent from the list of general ledger accounts shown below, a very simple form of the special revenue fund structure is adequate for the federal aid fund.

FEDERAL AID FUND

Assets, Resources, Encumbrances, and Expenditures

Cash	Estimated Revenues
Due from Other Funds	Encumbrances
State and Federal Aid Receivable	Expenditures

Liabilities, Reserve, Appropriations, and Revenue

Due to Other Funds	Reserve for Encumbrances
Due to Other Governments	Appropriations
Vouchers Payable	Revenues

Each of the twelve accounts listed above, with the exception of Reserve for Encumbrances, may be a controlling account.

Absence of a Fund Balance account from the above list reflects the fact that all resources received for a given project but not used in its consummation belong to the funds or agencies from which received. A federal aid fund is liable for refunding the unused assets to the grantor or grantors.

From the simple and brief chart of accounts, it is evident that general ledger accounting for such a federal aid fund poses no problem. Somewhat more difficult is the recording of detailed information for reporting to the sources of grants, for proving compliance with the stipulations established by the grantors. This is accomplished through well-planned and careful use of subsidiary ledger accounts for controlling and reporting expenditure of money received.

The short life and tight restrictions typical of federal aid funds tend to negate the use of conventional statements normally used for reporting the condition and activities of revenue funds. Of the special reports required by grantor agencies the major ones are those designed to reveal adherence to or deviation from specifications of the project grant, in terms of purposes to be served and the amount to be used for each purpose. Forms of these reports and statements are prescribed by the grantor agencies.

Capital fund.[12] During the last two decades, acquisition of buildings and structures has accounted for a large segment of public school financ-

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[11] Changes disseminated in 1969 modified this system of coding subsidiary accounts but left general ledger accounts and procedures unchanged.

[12] Counterpart of the capital projects class of funds for general government.

ing. Some of this has been accomplished through revenue fund (general and special) appropriations, much through bond issues, and, in some states, through private holding companies which provide direct financing of the facilities. In discharge of the debt, the school system makes systematic payments of principal and interest to the holding company until the debt is extinguished. At this juncture ownership of the property passes to the school system. The holding company payments are financed from current revenue, accounted for in general or special revenue funds. The holding company plan is useful for school systems which have already reached the legal debt limit while still in need of capital improvements.

An interesting and effective device, not yet widely adopted, is the establishment of a single fund to account for all costs of a capital project, whether financed in one or more ways—contributions from revenue, bond issues, state aid, federal aid, etc.—but not including the holding company method. One virtue of this arrangement is that it facilitates unified management of, and accounting for, a special class of transactions which may represent a high percentage of each year's budget. The exact specifications of such a financing structure should be set forth rather clearly in the statutes or other source of authority. In one state requiring school systems to consolidate multiple source acquisitions of capital assets in a single fund, the entity is established by a transfer of cash from the general or some other fund. Most transactions of the fund relate to receipt and expenditure of (1) the money transferred (advanced) from the general fund, (2) revenue received from the general fund by way of annual appropriations of the general fund,[13] and (3) proceeds of debt issuance. An advantage of this type of fund for capital asset acquisitions is that it operates on a project rather than a time basis, thus avoiding lapsing of authorizations. A chart of general ledger accounts suited to use for such a fund and, therefore, giving an idea of the accounting structure, is shown below:

CAPITAL FUND

Assets, Resources, Encumbrances, and Expenditures

*Cash
*Temporary Investments
Obligations Authorized—Unissued
*Financing to be Provided by Other Funds
Encumbrances
*Expenditures—Budgetary Appropriations
*Expenditures—Capital Reserve
*Expenditures—Obligations

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[13] Money supplied by state and federal governments comes to the capital fund *through* the general fund.

CAPITAL FUND—*Continued*

Liabilities, Revenue Appropriations, Reserves, and Balance

Bond Anticipation Notes Payable
Due to Other Funds
Reserve for Encumbrances
*Earnings on Temporary Investments
Premium on Securities Issued
Accrued Interest on Securities Issued
Authorizations—Budgetary Appropriations
Authorizations—Capital Reserve
Authorizations—Obligations
Capital Reserve Balance

It is important to note that some of the above-named accounts are controlling accounts supported by subsidiary ledger records. These are indicated by asterisks.

The only revenue account provided is for earnings from temporary investments. Other revenue accounts are dispensed with by the device of crediting to the resource accounts (Obligations Authorized—Unissued, and Financing to be Provided by Other Funds) the amounts of cash received from those resources, rather than crediting them to revenue.

Each capital project requires a separate capital fund, in the manner that each capital project of general government requires a separate fund. A capital fund is originated by receipt of money, in an amount designated by the school system management, from the school general fund. The entry on the capital fund books for this receipt is as follows, using an assumed amount:

Cash	100,000	
Capital Reserve Balance		100,000

Authorization of a project to cost $300,000, to be financed to the extent of $55,000 from the capital reserve fund balance, $70,000 from a general fund appropriation and $175,000 from a bond issue would require the following debits and credits which might be recorded in three entries if desired:

Capital Reserve Balance	55,000	
Financing to Be Provided by Other Funds	70,000	
Obligations Authorized—Unissued	175,000	
Authorizations—Capital Reserve		55,000
Authorizations—Budgetary Appropriations		70,000
Authorizations—Obligations		175,000

counts debited above are resource accounts, similar to Estimated ues, while those credited are appropriations accounts and might be designated. As stated previously, cash received from other funds and from issuance of bonds is credited to the second and third accounts

debited. Revenue accounts, except for Earnings on Temporary Investments, are not necessary because financing comes about through contributions of other funds, including a debt service fund for the bonds, and not from services provided by the capital fund.

How does the capital fund obtain cash for the three authorizations? As to the capital reserve authorization, the fund already has the cash and is now authorized to spend it for the designated project. Financing to be provided from other funds is realized when cash is received from the general fund. Because of the small number of cash receipts transactions of this fund, the credit for the general fund's payment is recorded in Financing to Be Provided from Other Funds, rather than establishing a separate revenue account. The exact source of the money credited to Financing to Be Provided by Other Funds is identified by use of subsidiary ledger accounts supporting the general title. Money from the obligations authorization may be derived from an immediate issue of bonds, with a credit to Obligations Authorized—Unissued or, pending issuance of the bonds, money may be obtained from bond anticipation notes payable, with a credit to an account with those words as the title. One notable fact about the bond issue is that since the capital fund is not responsible for paying off the debt, the liability will not be recorded in this fund but in the capital indebtedness group of accounts, which will be discussed briefly a few pages hence.

Cash from the three different sources, considering the capital reserve balance as a source, must be accounted for separately, in order that unused cash, if any, may be returned to its source or sources. This restriction might not apply in all states.

Since the chart of accounts contains no Accounts or Vouchers Payable account, its expenditures obviously are on a cash basis. This omission presumably derives from a state or local regulation that expenditures be reported on the cash basis. Even so, voucher documents would be useful. Nothing in the nature of this kind of fund precludes the employment of accrual accounting. When an expenditure is made from one of the three amounts of cash, the debit should be made to the corresponding expenditures acount, with proper posting to the subsidiary ledger for the expenditures account debited. A cash disbursement for temporary investments is not a project or fund expenditure, but a conversion from one form of assets to another. A proper showing of the source of general fixed assets acquired through a capital fund dictates that it be in terms of sources which provided money to the capital fund, that is, general fund, state government, etc.

When a capital project has been completed there may be a residue of assets in the fund. A reasonable policy would dictate that insofar as the residue can be identified with specific sources it should be disposed of as follows:

1. Assets derived from budgetary appropriations—to the fund or funds making the appropriations.
2. Assets derived from obligations—to the fund or funds which will liquidate the obligations or possibly the one which pays interest on them.
3. Assets represented by the capital reserve fund balance—to the fund which provided the initial financing.

Since capital funds are limited life entities, to be terminated upon completion of their respective projects, they can be administered with fewer financial statements than revenue and other funds of longer duration. This means that statements embodying various comparisons of conditions and changes at different stages in the existence of continuing funds have no value—in fact, could not be prepared—for a capital fund. Balance sheets, statements of cash receipts and disbursements, and statements comparing status of expenditures compared with authorizations are the more important ones for that type of fund.

Debt service fund. Growth of educational enrollments in the nation, with the attending growth of demand for equipment and facilities, has resulted in a manifold increase of debt financing and debt service requirements. Although much direct servicing of serial debt by general and special revenue funds is likely to continue indefinitely, the structure of debt service funds is fully adequate for servicing of all school long-term debt. Debt service fund accounting and reporting for public school systems is not fundamentally different from that for other units of government, but state laws or local regulations may dictate procedural variations which will differ among the states and localities in which they are practiced. Chapter 7 of this text relates to the general principles of debt service fund accounting and reporting.

Intragovernmental service or working capital fund. As indicated previously some auxiliary activities of a school system may be accounted for by use of either a revenue fund or a working capital fund structure, depending upon exactly what the particular class of activity embraces and how the activity is performed. For example, if a school system owns no transportation equipment but obtains transportation service by contract, the accounting system will be of the revenue fund type. If, on the contrary, the service is furnished by school-owned, -operated and -maintained equipment, an intragovernmental service fund is needed. Such funds are the subject of Chapter 9. Exactly how a transportation fund may be constructed and how it operates will vary from one system to another, but the adjusted trial balance of an imaginary transportation fund shown in Illustration 18–10 will serve to illustrate the essential features of a rather complete operation.

Although the Trenton transportation fund may appear to be overly detailed, the details provide numerous opportunities for preparing cost comparisons in terms of unit costs, in addition to a comparative balance

Illustration 18–10

TRENTON CONSOLIDATED SCHOOLS
Transportation Fund
Adjusted Trial Balance, December 31, 1969

	Debit	*Credit*
Cash	$ 21,380	
Due from other funds	67,950	
Due from other governmental units	10,010	
Inventory of parts and supplies	9,740	
Automotive vehicles*	408,500	
Allowance for depreciation—automotive vehicles		$171,570
Machinery and equipment	23,040	
Allowance for depreciation—machinery and equipment		8,060
Garage tools	1,580	
Buildings	26,730	
Allowance for depreciation—buildings		7,010
Land	6,400	
Vouchers payable		15,920
Accrued expenses		3,030
Contribution from general fund		350,000
Fund balance		21,460
Revenue from general fund		238,430
Revenue from other governmental units		15,750
Operators' salaries	117,400	
Salaries and wages—repair and maintenance service	19,340	
Parts and supplies used	31,710	
Depreciation of automotive equipment	49,020	
Depreciation of machinery and equipment	1,840	
Tools expense	2,090	
Depreciation of buildings	1,330	
Heat, light, and power	3,290	
Administrative salaries	9,500	
Charges for clerical services by general fund	11,880	
Insurance	3,720	
Other general expenses	6,110	
Sale of scrap and salvage		380
Insurance recoveries		950
	$832,560	$832,560

* Includes school buses and service vehicles.

sheet, comparative statement of operations, statement of cash receipts and disbursements, and statement of changes in fund balance. Of the major statements, the one comparing operations for two consecutive years is doubtless the most significant for managerial uses. Because of its usefulness in segregating all costs of pupil transportation, the intragovernmental service fund structure is definitely superior to that to a revenue fund for measuring and controlling what this service really costs.

Trust or agency fund. In its "Basis of Accounting" statement pertaining to trust and agency funds, one state school accounting manual states that these types of funds shall be used to account for all moneys and other assets received by the school district treasurer in his official capacity,

either to be held in trust or to be transmitted to others. Another statement specifies a separate accounting for the transactions and balances of the several funds maintained. It should be noted that these directions do not prohibit combined reporting. Since trust and agency fund accounting has received extensive treatment in an earlier chapter (Chapter 8), no separate discussion of its application to public schools will be given. However, it may be said that some of the kinds of deductions for which schools are responsible and which may require agency funds are those for savings bond and credit union transactions; federal income, state, and social security taxes; and group insurance premiums. If not required by law to be accounted for in the general fund, deductions for state teachers' retirement contributions might well be accounted for in an agency fund. All of the foregoing represent the treasurer's operations as an agent for receiving and remitting. He serves as a trustee in managing guaranty and bid deposits and gifts or endowments received for the benefit of the school system population. The major responsibilities of the school treasurer or other individual in his agent–trustee capacity is the preservation of agency–trust fund assets and their prudent investment for the production of income. Balance sheets and statements of cash receipts and disbursements are the most important trust and agency fund statements, possibly to be supplemented by a statement of earnings if assets are held in sizable amounts.

Account groups

General fixed assets. The magnitude of public investment in school plant and equipment in thousands of school systems dictates that for proper management of the assets represented, a general fixed assets group of accounts should be maintained. Use of "group" instead of "fund" in this connection has been explained in Chapter 13. Land, Buildings, and Equipment are the classes of fixed assets to be used, with each class title serving as the controlling account for a subsidiary ledger. If desired, Structures Other than Buildings and Construction in Progress (a suspense account) might be added to the three mentioned. Long-term, or fixed, assets used exclusively in the operations of a working capital or intragovernmental service fund should not be accounted for in this group but in the structure of the special fund by which they are used—unless some unusual circumstance exists.

The reasons for maintaining a general fixed assets group, some of which are interrelated, are as follows:

1. To promote the maintenance of a perpetual physical inventory, for revealing otherwise undisclosed reductions.
2. To assist in establishing individual accountability for care and protection of property.
3. To furnish reliable information for insurance coverage.
4. To provide a record of public investment in school system plant and equipment, both as to amounts and sources.

The first three purposes mentioned in the above list are served by the asset accounts, the fourth by equity or investment accounts under the heading of Investment in General Fixed Assets. Detailed accounts under that heading will include some or all of the following:

Investment in General Fixed Assets—General Fund
Investment in General Fixed Assets—Special Revenue Funds
Investment in General Fixed Assets—Federal Government
Investment in General Fixed Assets—State Government
Investment in General Fixed Assets—Contributions—Individuals

The accounting procedures for a general fixed assets group of accounts are explained in Chapter 13 and will not be repeated here.

The most important statements for a general fixed assets group are an annual comparative statement of general fixed assets and an annual statement of changes in general fixed assets. The former, it will be recalled from Chapter 13, is sometimes erroneously called a balance sheet.

Long-term debt and interest. School systems which have large amounts of long-term indebtedness outstanding should maintain a statement of bonded and other long-term debt and interest. Accounting procedures for this group in a public school system should follow the pattern of those recommended for this kind of group as operated by other kinds of governmental units (Chapter 14). The only major financial statement is a comparative statement (sometimes called a balance sheet) at the end of each year. Long-term notes should be included, with their requirements of principal and interest payments, and the same may be said for indebtedness to private holding companies.

As for the debit, or so-called asset, members of this group, one state prescribes a single account entitled Provision to be Made in Future Budgets for Capital Indebtedness, in which interest requirements are included. Some value might be added by separating the provision requirement into principal and interest. Furthermore, if principal, or principal and interest, payment funds are maintained, any amount accumulated in such a fund at the statement date should be reported as explained in Chapter 14.

MEASURING THE EFFECTIVENESS OF EXPENDITURES FOR PUBLIC SCHOOLS

In discussing and illustrating the operations of the kinds of funds used by public school systems and the statement forms adapted to financial reporting, attention has been confined to quantitative performances. Honest use of accounting and reporting procedures heretofore discussed can and does enable school administrators to ascertain the average cost of transportation for one mile or for any given period of time; to measure the per-pupil average cost of instruction in one course for one semester or any other length of time; and to determine the outlay per cost unit for the

many other activities included in the school program. Among school systems using comparable accounting and reporting techniques, numerous comparisons of statistics may be made to demonstrate the apparent superiority of one school system over another or others. Unfortunately there is no positive correlation between what is spent and what is accomplished in the way of improving the pupils' minds and characters, which presumably is still the main purpose of the public school program. Subjective accomplishment does not necessarily vary in proportion to objective performance. A higher unit cost does not guarantee a superior quality of pupil attainment, even though it may create a more favorable learning environment than exists in lower cost systems. An imposing school plant, a large array of administrators, advisors, counselors, etc., and a faculty roster replete with high academic degrees may possibly mean better education, but not invariably so. Positively reliable comparisons of bona fide educational cost performance of a school system would, if they were possible, need to take cognizance of such variables as the natural ability of pupils; their home environment, including parentage; the superior instructional ability of many teachers, irrespective of their formal academic achievements, and therefore not accurately reflected by the amount spent for instructional salaries. Such incidents as the occasional reports of pupils having reached the upper levels of a public school system without having learned to read tend to raise questions about what is really being accomplished with the public school dollar. With the employment of professional public relationists to "interpret" the schools to the public, the task of sound and dependable appraisal has become even more difficult.

In short, in the absence of a single criterion, such as amount of net income or net loss, for evaluating accomplishment; and in the presence of many intangible influences, some helpful, some detrimental to educational attainment—conventional techniques for evaluating financial information are not sufficient. Only by the application of well-informed, impartial judgment, preferably grounded in a good understanding of the fundamental educational process, can the conventional financial reports and statistics of public school operations lead to decisions which will generate maximum benefit to pupils and public.

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QUESTIONS

1. In the discussion and illustration of a school system general fund as operated in a given state, reference was made to appropriations to be financed from three resources: estimated revenues, appropriated fund balance, and budget notes authorized—unissued. Where will the actual money be obtained to pay for expenditures made under each of the three appropriations?
2. In Problem 1 below, Brookville School's general fund showed estimated revenues of $986,000 for the year, and $978,700 revenues realized at June 30. In transaction (7) $45,000 was borrowed during the second half year. What could account for the need to borrow money with more than 99 percent of the year's revenue realized during the first half of the year?
3. In transaction (4) of Problem 1, reference is made to encumbrances totaling $10,130 which were outstanding at December 31, 1968, but which had not yet received proper accounting in 1969. Is there any evidence of this situation in the trial balance of June 30, 1969?
4. In Problem 4 below, an imaginary school building is financed partly from a capital reserve balance, partly from a bond issue, and partly from current revenue from a general fund, including federal assistance. Does this signify that every capital fund must have those three sources of financing, or may two or one sometimes be adequate?
5. The annual report of a midwestern school system gives the following comparison of per-student costs for the 1968–69 school year:

Activity	*This System*	*National Average*
Administration	$ 11.02	$ 15.40
Instruction	345.94	311.15
Coordinate activities	14.86	30.45
Operation of plant and equipment	38.76	38.25
Maintenance of plant and equipment	12.94	12.50
Fixed charges	10.12	15.00
Auxiliary services	3.11	.10
Capital outlay	69.60	9.30
Indebtedness	52.49	40.55

a) From the foregoing information, prepare a comparison of unit costs in the following form, using the national average as the base figure:

Activity	*This System*	*National Average*	*This System—Over (Under) Amount*	*Percent*
Administration......	\$11.02	\$15.40	\$(4.38)	(28.4)

b) Ignoring the probability of variations due to unusual circumstances, which of the foregoing averages appear to be favorable to the midwestern school system? Which ones appear to be unfavorable? What unusual circumstance or circumstances might account for the great disparity of average capital outlay? Are any two of the unusual averages related?

6. In the early part of this chapter, there is a list of the *groups* of expenditure accounts approved by the U.S. Office of Education and widely used for local and state school systems. Below are the names of several detail accounts under the general classes. You are required to prepare a listing to show the *group* to which each detail account pertains: salaries of principals; contracted services for upkeep of grounds; salaries of clerks and other pupil transportation employees; salaries for school census enumeration; expenditures from current funds to retire long-term loans; payments to state teachers' retirement fund (school system's share); newspapers and magazines; salaries of school dentists; transportation to school districts in another state; expenditures to cover deficits of a separate (from general fund) food service fund; salaries for community recreational activities; salaries for custodial services; newspapers and magazines for a *public* library operated by the school system; new buildings and building additions; heat for buildings; expenditures in lieu of transportation (room, board, boats, sleighs, skis, etc.); replacements of instructional equipment (desks, seats, tables, etc.); travel of attendance personnel.
7. Auditors of a very large school system's financial records discovered three trust funds, each of which had been established more than half a century previously, for awarding medals for outstanding academic-related accomplishments. For the last 30 years the only entries in these three funds had been for receipt of interest on investments. Total assets of the funds (no liabilities) exceeded \$10,000. What, if anything, do you think the auditors should have done about the situation?
8. Because the debt margin of most school systems has tended to be very low during the last quarter century, there has been widespread use of holding corporations to obtain school real estate. When the facilities so acquired are "paid out" and title passes to the school corporations, what should be stated as the source of the investment in fixed assets representing the newly acquired facilities?
9. What do you consider to be the major benefit of the revenue (or receipts) and expenditure classifications of accounts developed under the direction of the U.S. Office of Education?

PROBLEMS

1. After six months of its 1969 fiscal year, Brookville School Corporation general fund had the following trial balance:

BROOKVILLE SCHOOL CORPORATION

General Fund
Trial Balance, June 30, 1969

	Debit	Credit
Cash	$ 37,910	
Cash from budget notes*	...	
Cash for tax anticipation notes	6,820	
Cash for bond interest and matured bonds	15,900	
Taxes receivable—current year	239,000	
Allowance for uncollected taxes—current year		$ 39,000
Taxes receivable—overdue	46,700	
Allowance for uncollected taxes—prior years		56,700
Accounts receivable	3,500	
Due from other funds	78,320	
State and federal aid receivable	318,470	
Temporary investments	15,650	
Vouchers payable		14,355
Tax anticipation notes payable		7,480
Budget notes payable*		...
Bond interest and matured bonds payable		15,900
Due to other funds		59,640
Reserve for encumbrances		435,130
Fund balance		61,565
Estimated revenues	986,000	
Budget notes authorized*	...	
Appropriated fund balance	7,000	
Appropriations		993,000
Revenues		978,700
Encumbrances	425,000	
Expenditures	481,200	
	$2,661,470	$2,661,470

* These account titles are required for some second half-year transactions.

During the second half of 1969 the following transactions occurred:

(1) Encumbrance documents totaling $99,010 were issued to vendors, contractors and others.
(2) All tax anticipation notes, which had been discounted at the time of issue, were paid in full, using the necessary amount of general cash to supplement the segregated cash.
(3) Bond interest and principal due at June 30, 1969 were paid.
(4) Attention was called to the fact that three contracts outstanding December 31, 1968, in the total amount of $10,130, had not received proper accounting in 1969. This was done, including the necessary appropriation.
(5) All temporary investments were sold for $15,890, which included $210 accumulated interest and $30 gain.
(6) Routine cash collections for the second half of the year included $46,050 from other funds, $194,000 from current year's taxes, $2,690 from overdue taxes, $2,400 from accounts receivable, and $293,650 from state and federal aid.
(7) Due to insufficiency of cash from normal sources, the school trustees voted to finance purchase of equipment for a special educational program by the issue of $45,000 budget notes payable.
(8) Equipment estimated to cost $10,970 was ordered for the special educational program.
(9) During the last half-year $25,100 of overdue taxes were classified as uncollectible and written off.
(10) Routine expenditures during the second half of 1969 totaled $532,080, of which $510,250 was vouchered and $21,830 credited to the agency fund for state teachers' retirement contributions. These expenditures had been encumbered at $529,210.

(11) The \$45,000 of budget notes were discounted for six months at the rate of 5 percent per year.
(12) \$68,040 cash was transferred to other funds. (Vouchering may be omitted.)
(13) \$517,320 of vouchers payable were liquidated, using \$6,070 cash from budget notes and the balance from unrestricted cash.
(14) A liability for payment, in 1970, of \$8,000 bond principal and \$200 interest was recorded. This transaction had been budgeted for 1969 and was encumbered early in the year. The required amount of cash was segregated. (Omit vouchering.)
(15) Unpaid current-year taxes were transferred to the overdue taxes account.
(16) Allowance for Uncollected Taxes-Prior Years was adjusted so that the sum of the two allowance account balances would equal the total of unpaid taxes.

You are required to do the first or both of the following parts:

a) Journalize the Brookville School Corporation's general fund transactions for the second half of 1969. Explanations may be omitted.

b) Record the June 30, 1969, balances in T accounts, post the journal entries for the second half of 1969, and prepare a trial balance for December 31, 1969.

2. A number of transactions in the illustration of school system general fund accounting, beginning with the trial balance of Trenton Consolidated Schools general fund at December 31, 1968, (Illustration 18–1) affected another fund or group of accounts. You are required to do the following things:

   a) Refer to the transactions and entries leading up to the December 31, 1969, trial balance (Illustration 18–2) and for each transaction that affects another fund or group of accounts make the entry required for the other fund or group of accounts. If the name of the other fund (or funds) is not apparent from the transaction, record it as an "other fund" or "other funds" transaction, as for transaction 4 of that series: Other Funds:

Due from General Fund	55,000	
Revenues		55,000

   b) Assume that the Trenton school system has the kinds of funds and groups named as appropriate for public school accounting.

3. The Rossburg School District had no organized record of its general fixed assets, but such a record was decreed by the school trustees in 1968. Much of the required information was located by the school administrators. An accounting firm was employed to complete the investigation and establish the necessary records, including subsidiary ledgers, and accounting procedures. A consolidation of findings showed the following information as recorded to December 31, 1968:

Classes	*Actual or Apparent Cost or Appraised Value*
Land	\$ 75,200
Buildings	1,215,000
Structures other than buildings	27,300
Equipment	586,400
Construction in progress—buildings	70,000

ning balances; additions for each class of assets and horizontal totals; total of beginning balance and additions for each class and horizontal totals.

4. In 1968, after several months of planning, the Richland School Corporation formally authorized construction of a building to be completed before September 1, 1969, at an estimated cost of $980,000. Financing was to be provided by a bond issue of $500,000, a federal grant of $300,000 dedicated to the construction project, and the remainder from property taxes and other revenue of the general fund. The cash basis of accounting was decreed. In the absence of a subsidiary ledger account for Cash in this problem, it is advisable to identify each cash debit or credit as Cash—Other Funds (from budgetary appropriations), Cash–Capital Reserve, or Cash—Obligations.

(1) Capital fund No. 14 was established by the receipt of $50,000 cash from the general fund.
(2) Authorization of the project, with intended sources of financing as follows, was formally recorded:

Bond issue	$500,000
Federal grant (through general fund)	300,000
Other revenue of general fund	150,000
Capital fund reserve	30,000

(3) The general contract for most of the project cost was let to Allison Construction Company on its low bid of $955,000.
(4) To provide money for progress payments to the contractor before receipt of substantial amounts from other sources, $125,000 of bond anticipation notes were issued.
(5) Temporary investments were purchased at a cost of $55,000 from proceeds of the bond anticipation notes.
(6) Preliminary costs related to the project, which had not been encumbered, were paid from obligations cash in the amount of $18,000.
(7) Based upon proper certification by the supervising architect, the general contractor was paid for completion of $45,000 of the contract, $5,000 from capital reserve cash and $40,000 from bond anticipation note cash.
(8) The entire bond authorization was sold for $519,000, $13,000 representing premium, and $6,000 accrued interest, on the bonds issued.
(9) $5,000 of the premium on securities issued was appropriated for construction purposes, leaving $8,000 to be transferred to a debt service fund.
(10) The balances of premium and accrued interest were transferred to a debt service fund, to be applied on payment of bond interest and principal.
(11) The temporary investments of bond anticipation cash were sold for $55,800.
(12) The bond anticipation notes were retired, with an interest cost of $3,000. (Debit Expenditures—Obligations for the interest cost.)
(13) All cash appropriated for the capital project by the general fund was received.
(14) The project was completed and approved by the supervising architect and all other legally concerned parties and the contractor was paid the balance of the contract price. The maximum amounts were paid against the general fund and obligations authorizations.
(15) Capital fund No. 14 was ordered liquidated and the necessary action was taken

You are required to do the following things:

a) Journalize the foregoing transactions.
b) Post them to ledger accounts.
c) Prepare a trial balance after transaction 14.

Expenditures		
Salaries of regular help	$120,355	$117,860
Cost of food served to regular and student help	3,115	3,010
Food supplied by federal government	25,660	28,010
Food purchases	48,140	44,350
Miscellaneous expenses	9,030	17,680
	$206,300	$210,910

You are required to prepare the following statements and answer the following questions, carrying percentages to the nearest tenth:

a) A comparative revenue and expense statement with a pair of columns headed "Increase–(Decrease)" with subheadings of "Amount" and "Percent."

b) A comparative balance sheet with a column showing "1969 percent of 1968."

c) What was the ratio of food cost to revenues for each of the two years?

d) The ratio of food cost to total revenue of Jacksonburg schools is comparable to the average of such ratio for commercial food service establishments in the geographical region where the schools are located. Do you consider this similarity of ratios commendable or reprehensible for the Jacksonburg school lunch program?

e) At what price or prices should food served to employees and to needy children be recorded and subsequently reported in the statement of revenue and expenses?

7. In 1966 the town of Sumter school system officials decided to seek a federal grant for partial financing of a vocational education project in the community. Preliminary investigation and planning having been completed, an application for financial assistance was presented to the appropriate federal agency for a grant of $126,000. The balance of the estimated total project cost of $180,000 was to be supplied by a $36,000 grant of state aid and $18,000 from the school system general fund. In 1967 the project, No. 33, was approved by the state and federal governments, and the following transactions occurred:

(1) The project budget based upon the assumption of 100 percent collection and use of the available funds was recorded.
(2) The amount to be received from the school system general fund was recorded.
(3) $5,000 for use in paying initial costs was received from the general fund.
(4) Purchase orders, contracts, and other commitments were incurred at a total estimated cost of $47,500.
(5) Unencumbered costs were vouchered in the amount of $4,500.
(6) Federal and state agencies were billed for $27,000 and $9,000 respectively.
(7) Goods and service orders which had been encumbered at $28,900 were received. Vouchers payable were recorded for them in a total amount of $29,600.
(8) Additional billings to federal and state agencies were made in the amount of $63,000 and $17,000 respectively.
(9) Additional commitments were recorded for $18,000 worth of supplies and for estimated salaries and contractual services of $103,200 for the balance of the project life.
(10) Settlement was received in full for all amounts billed to the state and federal gov-

Using information from the above revenue and expense statements, you are required to do the following things:

a) By comparing, in percentages, the ratio of food costs to total revenues for each of the two years, state whether, on the surface, the cafeteria system put out more, or less, food for revenue received in the later year.

b) State at least two factors which might have accounted, in whole or in part, for the change in the ratio from the first to the second year.

c) It is apparent that personnel costs increased substantially, both in total and in relation to other items, in the later year. Calculate the ratio of total personnel costs (excluding meals for student help) to total revenues for each of the two years.

d) Suppose that an analysis of food costs and revenues showed that, on a weighted average basis, food costs were 5 percent higher and selling prices 6 percent higher in the later year; and convert both later year costs and revenues (for simplicity you may include federal grants in selling price) to the former year basis.

e) In the earlier year the nonproductive cost of labor (pensions, vacations, etc.) was 4.8 percent of total revenue. In the later year it was 7.5 percent of total revenue. Do you consider this a significant change?

f) Determine the total cost of personnel (excluding student help) for each of the two years and compute the percentage (nearest whole percent) of this total represented by nonproductive cost (pensions, vacations, etc.)

g) Since most of the relationships computed from the cafeteria system revenue and expense statements did not appear to prove anything conclusively, can it be said truthfully that similar calculations would have no value in managing a school cafeteria or cafeteria system?

h) A large percentage of eating establishments operated for profit are unable to give customers more than 40¢ worth of food (at cost) for each $1 charged. From a study of the comparative revenue and expense statements for the large school system cafeterias, can you discern or think of any reason or reasons why they can give better than 50¢ worth of food for each dollar of revenue, compared with the 40¢ for private operators?

i) In the later year, cafeteria patrons paid $106,976 more for prepared food while the cost of the food sold in the later year was $12,401 less. State how this compares with the change in personnel cost, omitting cost of student help.

9. Troy Township Consolidated School is considering the purchase of school buses to replace the present system of contracting each year for the service by route and day. The present routing is considered to be best, and it is desirable that there be no increase or decrease in the number of buses. The following information is available regarding the present costs and routes:

Route Number	Miles per Day	Contract Cost per Day
1	100	$44.00
2	60	31.00
3	80	32.00
4	50	30.00
5	60	27.00

It is also the present practice to hire one of the school buses to transport teams to athletic events away from home and for certain other school purposes. By standing agreement with the bus contractors, they are paid $1 per mile for this service. Over the past three years, the service has cost the township an average of $1,500 per year for an average of 20 trips per year. There are 180 school days in the year.

It is estimated that the township would have the following costs if it owned and operated the school buses:

(1) Cost of each school bus body, $12,000; cost of each chassis, $5,000; cost of having body placed on chassis, $200. It is estimated that each body would last 10 years and the chassis 5 years, with an estimated 10 percent of original cost as scrap value on each.
(2) Gasoline would cost the township 30¢ per gallon, and it is estimated that the school buses would be able to average 10 miles per gallon of gasoline.
(3) Drivers can be obtained on contract for $16 per day and per athletic trip, and they would be expected to take care of the minor servicing necessary on the buses they drive.
(4) It is expected that the buses would be greased and the oil changed every 1,000 miles, the materials for which would cost the township $4 per change.
(5) It is estimated that a pole-type shed to house and service the school buses would cost $19,000 and would have a life of 20 years.
(6) Miscellaneous servicing equipment (small tools), with a 10-year life on the average, would cost $1,500.
(7) Repairs, replacement of small parts and tires as necessary, and similar items, are estimated to cost $560 per year per bus.
(8) Antifreeze and miscellaneous supplies and expenses are expected to total $650 per year for all buses.
(9) Insurance premiums for a fleet-type policy on the buses is expected to cost $2,240 per year.

It will be assumed that the above items cover all the costs the township would incur in owning and operating the buses. You are required to do the following things:

a) Prepare a statement comparing the estimated costs with the present costs (to nearest whole cent) to determine whether or not it would be desirable for the township to own and operate the buses. Show all computations.
b) Assuming that all fixed costs would be reduced in proportion to the number of routes operated, on the basis of the above facts would it be economical for the township to continue the contracts on the present basis for any one or more of the routes?

(Indiana State Board of Accounts, adapted)

10. The Board of Education of the Victoria School District is developing a budget for the school year ending June 30, 1970. The budgeted expenditures follow:

VICTORIA SCHOOL DISTRICT

Budgeted Expenditures
For the Year Ending June 30, 1970

Current operating expenditures:			
Instruction:			
General	$1,401,600		
Vocational training	112,000	$1,513,600	
Pupil service:			
Bus transportation	$ 36,300		
School lunches	51,700	88,000	
Attendance and health service		14,000	
Administration		46,000	
Operation and maintenance of plant		208,000	
Pensions, insurance, etc.		154,000	
Total current operating expenditures			$2,023,600
Other expenditures:			
Capital outlays from revenues		$ 75,000	
Debt service (annual installment and interest on long-term debt)		150,000	
Total other expenditures			225,000
Total Budgeted Expenditures			$2,248,600

The following data are available:

(1) The estimated average daily school enrollment of the school district is 5,000 pupils, including 200 pupils enrolled in a vocational training program.
(2) Estimated revenues include equalizing grants-in-aid from the state of $150 per pupil. The grants were established by state law under a plan intended to encourage raising the level of education.
(3) The federal government matches 60 percent of state grants-in-aid for pupils enrolled in a vocational training program. In addition the federal government contributes towards the cost of bus transportation and school lunches a maximum of $12 per pupil based on total enrollment within the school district but not to exceed $6\frac{2}{3}$ percent of the state per-pupil equalization grants-in-aid.
(4) Interest on temporary investment of school tax receipts and rents of school facilities are expected to be $75,000 and are earmarked for special equipment acquisitions listed as Capital Outlays from Revenues in the budgeted expenditures. Cost of the special equipment acquisitions will be limited to the amount derived from these miscellaneous receipts.
(5) The remaining funds needed to finance the budgeted expenditures of the school district are to be raised from local taxation. An allowance of 9 percent of the local tax levy is necessary for possible tax abatements and losses. The assessed valuation of the property located within the school district is $80,000,000.

Required:

a) Prepare a schedule computing the estimated total funds to be obtained from local taxation for the ensuing school year ending June 30, 1970 for the Victoria School District.

b) Prepare a schedule computing the estimated current operating cost per regular pupil and per vocational pupil to be met by local tax funds. Assume that costs other than instructional costs are assignable on a per capita basis to regular and vocational students.

c) Without prejudice to your solution to part (*a*), assume that the esti-

mated total tax levy for the ensuing school year ending June 30, 1970 is $1,092,000. Prepare a schedule computing the estimated tax rate per $100 of assessed valuation of the property within the Victoria School District.

(AICPA, adapted)

11. The following budget was proposed for 1969 for the Mohawk Valley School District general fund:

Fund balance, January 1, 1969	$128,000
Revenues:	
Taxes	112,000
Investment income	4,000
Total	$244,000
Expenditures:	
Operating	$120,000
County treasurer's fees	1,120
Bond interest	50,000
Fund balance, December 31, 1969	72,880
Total	$244,000

A general obligation bond issue of the school district was proposed in 1968. The proceeds are to be used for a new school. There are no other outstanding bond issues. Information about the bond issue follows:

Face	$1,000,000
Interest rate	5%
Bonds dated	January 1, 1969
Coupons mature	January 1 and July 1, beginning July 1, 1969

Bonds mature serially at $100,000 per year starting January 1, 1971.

The school district uses a separate bank account for each fund. The general fund trial balance at December 31, 1968 follows:

	Debit	*Credit*
Cash	$ 28,000	
Temporary investments—U.S. 4% bonds, interest payable May 1 and November 1	100,000	
Fund balance		$128,000
	$128,000	$128,000

The County Treasurer will collect the taxes and charge a standard fee of 1 percent on all collections. The transactions for 1969 were as follows:

January 1—The proposed budget was adopted; the general obligation bond issue was authorized, and the taxes were levied.
February 28—Tax receipts from County Treasurer, $49,500, were deposited.
April 1—Bond issue was sold at 101 plus accrued interest. It was directed that the premium be used for payment of interest.
April 2—The school district disbursed $47,000 for new school site.
April 3—A contract for $950,000 for the new school was approved.
May 1—Interest was received on temporary investments.
July 1—Interest was paid on bonds.
August 31—Tax receipts from County Treasurer, $59,400 were deposited.
November 1—Payment on new school construction contract. $200,000, was made.
December 31—Operating expenses paid during year were $115,000.

Required:

Prepare the formal journal entries to record the foregoing 1969 transactions in the following funds or groups of accounts, as explained in this chapter.

a) General Fund.

b) Capital Fund.

c) General Fixed Assets.

d) General Bonded Debt and Interest.

Each journal entry should be dated the same as its related transaction as given above. Make the journal entries for each fund and group of accounts in a group by themselves. Explanations may be very brief, but should be percise. (Because certain transactions related to payment of interest are plainly specified in the problem as pertaining to the general fund, a debt service fund cannot be used for the solution.)

(AICPA, adapted)

Chapter 19

Federal Government Accounting

Although an accounting structure has been provided for the federal government of the United States of America by statutes since 1789, the development of the structure lagged far behind the growth in complexity of governmental operations. Occasional efforts of varying effectiveness were made during the first 160 years of the existence of the federal government to improve the usefulness of its accounting, budgeting, and financial reporting systems, but it was not until after the close of World War II that efforts appear to have been sustained over a significant period of time. The professional accounting consultants to the first and second Hoover Commissions generally are given credit for giving direction to the effort. The views of these consultants as to the nature of accounting appropriate for governmental use were evidently colored by the recommendations of the National Committee on Governmental Accounting—the recommendations elaborated on in the first 16 chapters of this text—and were strongly influenced by the use in private business of accrual accounting as an aid to financial management. For these reasons, this chapter is focused on the aspects of federal accounting which differ from the municipal accounting concepts explained in previous chapters.

Accounting and auditing policies of the Congress

The creation of the legal framework of the federal government is the prerogative of the Congress. The accounting and auditing policies of the Congress, therefore, are of fundamental importance to an understanding of federal accounting. The major policies are expressed in Public Law 784 of the 81st Congress:

SEC. 111. It is the policy of the Congress in enacting this part that—

(*a*) The accounting of the Government provide full disclosure of the results of financial operations and adequate information needed in the management of operations and the formulation and execution of the Budget, and effective control over income, expenditures, funds, property, and other assets.

(*b*) Full consideration be given to the needs and responsibilities of both the

legislative and executive branches in the establishment of accounting and reporting systems and requirements.

(*c*) The maintenance of accounting systems and the producing of financial reports with respect to the operations of executive agencies, including central facilities for bringing together and disclosing information on the results of the financial operations of the Government as a whole, be the responsibility of the executive branch.

(*d*) The auditing for the Government, conducted by the Comptroller General of the United States as an agent of the Congress, be directed at determining the extent to which accounting and related financial reporting fulfill the purposes specified, financial transactions have been consummated in accordance with laws, regulations or other legal requirements and adequate internal financial control over operations is exercised, and afford an effective basis for the settlement of accounts of accountable officers.

(*e*) Emphasis be placed on effecting orderly improvements resulting in simplified and more effective accounting, financial reporting, budgeting, and auditing requirements and procedures and on the elimination of those which involve duplication or which do not serve a purpose commensurate with the costs involved.

(*f*) The Comptroller General of the United States, the Secretary of the Treasury, and the Director of the Bureau of the Budget conduct a continuous program for the improvement of accounting and financial reporting in the Government.

The Comptroller General, the Secretary of the Treasury, and the Director of the Bureau of the Budget initiated a program for the improvement of accounting and financial reporting in 1947, even before the Congress officially expressed its desire that the three officials do so. Consistent with developments in thought concerning the role of accounting in business management, the program was rapidly broadened in scope until it is now known as the "Joint Financial Management Improvement Program." Since 1966 the Chairman of the Civil Service Commission has participated in this program in recognition of the critical problems of recruiting, classifying, and training people engaged in accounting and other financial management work.

A joint program involving the Comptroller General, the Secretary of the Treasury, and the Director of the Bureau of the Budget is necessary because the Congress has divided responsibility for accounting and for financial management in the federal government among not only these three individuals but also the heads of the multitude of civilian and military agencies in the executive branch of the government. The nature of the principal responsibilities, and their interrelationships, is explained in brief in the following sections.

Comptroller General. The Comptroller General of the United States is the head of the General Accounting Office, an agency of the legislative branch of the government. He is appointed by the President with the advice and consent of the Senate for a term of office of 15 years. Under

current law the Comptroller General is responsible for prescribing the principles, standards, and related requirements to be observed by each executive agency in the development of its accounting system. The principles, standards, and requirements prescribed by the Comptroller General must be consistent with the policies of the Congress quoted in the preceding section and should be reasonably related to generally accepted principles of accounting as espoused by the profession.

The General Accounting Office has the statutory duty of cooperating with executive agencies in the development of their accounting systems, and cooperating with the Treasury Department in the development of the system of central accounting and reporting. The agency accounting system and the Treasury centralized accounts are to be approved by the Comptroller General when deemed by him to be adequate and in conformity with the principles, standards, and related requirements prescribed by him. The Comptroller General also has the authority to prescribe forms, systems, and procedures for the administrative appropriation and fund accounting systems of the agencies.

Just as the appropriational authority of municipalities and state governments rests in their legislative bodies, the appropriational authority of the federal government rests in the Congress. The Congress is, therefore, interested in determining that financial and budgetary reports from executive, judicial, and legislative agencies are reliable; that agency financial management is intelligent, efficient, and economical; and that legal requirements have been met by the agencies. Under the assumption that the reports of an independent audit agency would aid in satisfying these interests of the Congress, the General Accounting Office was created as the audit agency of the Congress itself. In addition to reporting to the Congress the results of its audits, the General Accounting Office is directed by law to review agency accounting systems and make such reports thereon to the Congress as the Comptroller General deems necessary.

Secretary of the Treasury. The Secretary of the Treasury is the head of the Department of the Treasury, a part of the executive branch of the federal government. The Secretary of the Treasury is a member of the Cabinet of the President, appointed by the President with the advice and consent of the Senate to serve an indefinite term of office. The Department of the Treasury was created in 1789 to receive, keep, and disburse monies of the United States, and to account for them. From the beginning, the word "receive" was construed as "collect," and the Internal Revenue Service, Bureau of Customs, and other agencies active in the enforcement of the collection of revenues due the federal government are parts of the Treasury Department, as are the Bureau of the Mint, Bureau of Engraving and Printing, Bureau of Public Debt, Office of Treasurer of the United States, and the Bureau of Accounts. The latter two are of most concern in this chapter.

The Secretary of the Treasury is responsible for the preparation of "such reports for the information of the President, the Congress, and the public as will present the results of the financial operations of the Government" (Sec. 114, PL 784, 81st Congress). An additional responsibility of the Secretary of the Treasury is the maintenance of a system of central accounts to provide a basis for consolidation of the accounts of the various executive agencies with those of the Treasury Department.

Statutes provide that the reports of the Secretary of the Treasury shall include financial data needed by the Bureau of the Budget, and that the Treasury Department's system of central accounting and reporting shall be consistent with the principles, standards, and related requirements established by the Comptroller General.

Director of the Bureau of the Budget. The Director of the Bureau of the Budget is appointed by the President without Senate confirmation because he is a member of the President's staff, not a Cabinet officer. Accordingly, the Bureau of the Budget is a part of the Executive Office of the President. As the direct representative of the President with the authority to control the size and nature of appropriations requested of each Congress, it is obvious that the Director of the Bureau of the Budget is an extremely powerful figure in the federal government.

The Congress requires the following with respect to the Budget (Sec. 102, PL 784, 81st Congress):

SEC. 102. (a) Section 201 of such Act [the Budget and Accounting Act of 1921] is amended to read as follows:

"SEC. 201. The President shall transmit to Congress during the first fifteen days of each regular session, the Budget, which shall set forth his Budget message, summary data and text, and supporting detail. The budget shall set forth in such form and detail as the President may determine—

"(a) functions and activities of the Government;

"(b) any other desirable classifications of data;

"(c) a reconciliation of the summary data on expenditures with proposed appropriations;

"(d) estimated expenditures and proposed appropriations necessary in his judgement for the support of the Government for the ensuing fiscal year, except that estimated expenditures and proposed appropriations for such year for the legislative branch of the Government and the Supreme Court of the United States shall be transmitted to the President on or before October 15 of each year, and shall be included by him in the Budget without revision;

"(e) estimated receipts of the Government during the ensuing fiscal year, under (1) laws existing at the time the Budget is transmitted and also (2) under the revenue proposals, if any, contained in the Budget;

"(f) actual appropriations, expenditures, and receipts of the Government during the last completed fiscal year;

"(g) estimated expenditures and receipts, and actual or proposed appropriations of the Government during the fiscal year in progress;

"(h) balanced statements of (1) the condition of the Treasury at the end

of the last completed fiscal year, (2) the estimated condition of the Treasury at the end of the fiscal year in progress, and (3) the estimated condition of the Treasury at the end of the ensuing fiscal year if the financial proposals contained in the Budget are adopted;

"(i) all essential facts regarding the bonded and other indebtedness of the Government; and

"(j) such other financial statements and data as in his opinion are necessary or desirable in order to make known in all practicable detail the financial condition of the Government."

It should be noted that the congressional requirements for the budget, listed above, have a number of accounting implications in addition to the explicit historical comparisons which necessitate cooperation among the Bureau of the Budget, Treasury Department, and General Accounting Office. Implicit in the requirements for projections of revenues and receipts is the mandate that the Bureau of the Budget coordinate closely with the Council of Economic Advisers in the use of macroeconomic and macroaccounting forecasts. Macroaccounting is beyond the scope of this text, yet the subject is of great, and increasing, importance in the financial management of the federal government; and the reader who desires an understanding of federal financial policies and their integration with political, social, and economic policies should be knowledgeable in the macroeconomic and macroaccounting areas.

The Bureau of the Budget is not only concerned with preparation and submission of the budget; it is also directed by the Congress "to evaluate and develop improved plans for the organization, coordination, and management of the executive branch of the Government with a view to efficient and economical service" (Sec. 104, PL 784, 81st Congress). One important device utilized by the Bureau of the Budget in its effort to improve management of executive agencies, and to relate this effort to justifications for appropriations requested of the Congress, has been the adoption of the business concept of relating budgeted expenditures to planned activities in a meaningful manner. This concept, known in the federal government as the Planning-Programming-Budgeting System, usually shortened to PPBS, was required of all executive agencies by Presidential memorandum in May, 1966. The ability to present a provable relationship lies in the development of agency cost accounting as well as agency appropriation accounting.

Accounting principles in the federal government

The accounting principles and standards prescribed by the Comptroller General of the United States are summarized in the General Accounting Office *Manual for Guidance of Federal Agencies.* The manual emphasizes that the Treasury Department and the Bureau of the Budget participated in the development of the statement of accounting principles and standards; it also emphasizes that the responsibility for establishing and main-

taining adequate systems of accounting and control is placed by statute upon the head of each executive agency.

The fundamental purposes which should underlie the accounting of each federal agency, according to the manual (Title 2, Section 6), are:

1. To provide information necessary for effective and economical management of its operations and the resources entrusted to it.
2. To enable the management to report on the discharge of its responsibilities for the resources and operations for which it is accountable.

The General Accounting Office manual stresses the role of accounting in agency management and the need for cost accounting by responsibility centers in support of the Planning-Programming-Budgeting System prescribed by the President for executive agencies. The necessity for the accounting system to promote compliance with the law is, of course, also emphasized, but this is placed in the perspective that legal requirements will be met most successfully through good management, rather than through formal record keeping. The logic of this position is that costs are the results of management decisions, and informal decisions as to plans for future expenditures are likely to be more important than actions which can at once be reduced to conventional documents such as contracts and purchase orders.

Fund accounting, in a broad sense, is required in the federal government to evidence agency compliance with requirements of existing legislation. One of the most important acts which causes federal agencies to adhere to fund accounting concepts is the "Antideficiency Act" (Section 3679 of the Revised Statutes). The principal purposes of this act are to prevent the incurring of obligations or the making of expenditures which would create deficiencies in appropriations, to fix responsibility within an agency for excess obligations and expenditures, and to assist in bringing about the most effective and economical use of appropriations and funds. (Title 2, Subsection 10.1, GAO manual.)

Two general types of funds are found in federal government accounting: (1) those used to account for resources derived from the general taxing and revenue powers or from business operations of the government, and (2) those used to account for resources held and managed by the government in the capacity of custodian or trustee. Subsection 11.3 of the GAO manual provides the following elaboration of the two general types:

1. Funds derived from general taxing and revenue powers and from business operations.
   A. General fund.
   B. Special funds.
   C. Revolving funds.
   D. Management funds.

2. Funds held by the government in the capacity of custodian or trustee.
   A. Trust funds.
   B. Deposit funds.

General fund. In federal government usage, general fund accounts consist of receipt accounts, used to account for collections which are not dedicated to specific purposes; and expenditure accounts, used "to record financial transactions arising under congressional appropriations or other authorizations to spend general revenues." (Subsection 11.3, GAO manual.)

Strictly speaking there is only one general fund in the entire federal government. The Bureau of Accounts of the Treasury Department accounts for the centralized cash balances (the cash is under the control of the Treasurer of the United States; cash accounts subsidiary to those of the Bureau of Accounts are maintained by the Treasurer), the appropriations control accounts, and unappropriated balances. On the books of an agency each appropriation is treated as a fund with its own self-balancing group of accounts; these agency "funds" are subdivisions of *the* general fund. The interrelationships of agency and Treasury accounts are illustrated in a subsequent section of this chapter.

Special funds. Receipts and expenditure accounts which are established to account for receipts of the government which are earmarked by law for a specific purpose, but which are not generated from a cycle of operations for which there is continuing authority to reuse such receipts (as is true for revolving funds), are classified as "special fund accounts" in federal usage. The term and its definition are very close to that of the classification "special revenue funds" used in municipal accounting.

Revolving funds. Funds which are established by law "to finance a continuing cycle of operations, with receipts derived from such operations available in their entirety for use by the fund without further action by the Congress" (quite similar to the type of municipal fund discussed in the chapter on intragovernmental service funds) are in the "revolving fund" category, as are funds established to facilitate accounting for and administration of intragovernmental operations which are financed by two or more appropriations of an agency.

Management funds. Management funds are combined receipt and expenditure accounts established by law to facilitate accounting for and administration of intragovernmental operations of an agency.

Trust funds. Trust funds are established to account for receipts which are held in trust for use in carrying out specific purposes and programs in accordance with agreement or statute. In distinction to revolving funds and special funds, the assets of trust funds are frequently held over a period of time and may be invested in order to produce revenue. For example, the assets of the Federal Old Age and Survivors Insurance Trust Fund is invested in United States bonds.

The corpus of some trust funds is used in business-type operations. In

such a case the fund is called a "trust revolving fund." In general, the discussion of trust funds in Chapter 8 is applicable in principle to federal trust funds.

Deposit funds. Combined receipt and expenditure accounts established to account for receipts held in suspense temporarily and later refunded or paid to some other fund, or receipts held by the government as a banker or agent for others and paid out at the discretion of the owner, are classified within the federal government as "deposit fund accounts." They are similar in nature to the "agency funds" established for municipalities.

Definition of terms

Certain terms are used in the federal government in place of those used in municipal accounting, or in slightly different senses. For example:[1]

Accrued Expenditures is a term peculiar to the federal government. It is defined as: charges incurred for goods and services received and other assets acquired, whether or not payment has been made and whether or not invoices have been received.

Obligation. Specific requirements are set forth in Section 1311 of the Supplemental Appropriation Act (31 U.S.C. 200) for the documentation and recording of obligations, and the Bureau of the Budget has issued detailed instructions distinguishing between "obligations incurred" and "accrued expenditures"; but for the purposes of this text, it is sufficient to state that "obligations" relate to goods and services ordered, "accrued expenditures" relate to goods and services received, and "costs" measure goods and services consumed or applied. Thus, the term "obligation" in federal usage replaces the term "encumbrance" used in municipal accounting.

Apportionment. Appropriations authorized by the Congress often are not released in their entirety to the agencies by the Bureau of the Budget, but are *apportioned* or *reserved* (see below). An "apportionment" is the amount made available by the Bureau of the Budget to an agency for obligation or expenditure for specified time periods, activities, functions, projects, objects, or combinations therof.

Reserve. A budgetary "reserve" differs from an apportionment in that a reserve is a portion of an appropriation set aside by the Bureau of the Budget because of (*a*) savings made possible by changes in requirements, greater efficiency of operations, or other developments subsequent to the date on which the authorization was made; or (*b*) contingencies.

Allocation. An amount set aside by an agency in a separate appropriation or fund account for the use of another agency in carrying out the purpose of an appropriation is called an "allocation."

Allotment. In contrast with the municipal usage of the term, an "allotment" in the federal government is an authorization by the head of

[1] All definitions in this section are taken from Bureau of the Budget Circular A-34, Sec. 21.

an agency to his subordinates to incur obligations within a specified amount, pursuant to apportionment made to the agency by the Bureau of the Budget of an appropriation made by the Congress.

Federal account structure

The account structure appropriate to the funds used in federal government accounting has been established by the Comptroller General as:

Accounts for assets.
Accounts for liabilities.
Accounts for investment of the U.S. government.
Accounts for investment of others (if applicable).
Accounts for revenues and costs.

The first four of the categories are balance sheet accounts, as is true in any branch of accounting; nominal accounts are grouped in the fifth category. The following sections of this chapter illustrate the essential features of the basic account structure of the federal government.

Federal agency balance sheet accounts

The balance sheet of a hypothetical nonbusiness-type federal agency as of the first day of the current fiscal year is shown in Illustration 19–1. Consistent with instructional material used within the federal government, the current fiscal year is denoted 19CY; the immediately prior fiscal year, 19PY; and the fiscal year immediately following the current one, 19BY. The fiscal year in the United States government is the 12-month period from July 1 through the following June 30.

Some significant differences between Illustration 19–1 and balance sheets of municipalities are obvious at first glance. First, although this federal agency is not a business-type operation, fixed assets as well as

Illustration 19–1

FEDERAL AGENCY

Balance Sheet
July 1, 19CY

Assets			*Liabilities and Investment of the U.S. Government*	
Current Assets:			Current Liabilities:	
Fund balances with U.S. Treasury—19PY		$ 675,000	Accounts payable	$ 275,000
Inventories		610,000		
Total Current Assets		$1,285,000	Total Current Liabilities	$ 275,000
Fixed Assets:			Unliquidated obligations—19PY	400,000
Equipment	$3,000,000		Investment of the U.S. government	3,010,000
Less: Accumulated depreciation	600,000			
Total Fixed Assets		2,400,000		
Total Assets		$3,685,000	Total Liabilities and Investment of U.S. Government	$3,685,000

current assets are accounted for in a single self-balancing group of accounts. Not only are fixed assets included, but depreciation is charged—a situation not approved of for municipalities by the National Committee on Governmental Accounting. Within the federal government, however, the Comptroller General has consistently taken the position that the principles of accrual accounting are applicable in nonbusiness-type agencies as well as business-type agencies. Since the concept of depreciation is fundamental to accrual accounting, the Comptroller General has said (GAO manual, Title 2, Subsection 12.5h):

> Procedures shall be adopted by each agency to account for depreciation (or amortization of cost) of capital assets whenever a periodic determination of the cost of all resources consumed in performing services is needed. The principal circumstances in which such information is needed include the following:
>
> 1. The financial results of operations in terms of costs of performance in relation to revenues earned, if any, are to be fully disclosed in financial reports.
> 2. Amounts to be collected in reimbursement for services performed are to be determined on the basis of the full cost of performance pursuant to legal requirements or administrative policy.
>
> Another circumstance requiring consideration, where the investment in fixed property assets used is substantial, is the need to assemble total costs to assist management and other officials in making cost comparisons, evaluating performance, and devising future plans.

A second significant difference between federal government balance sheets and municipal balance sheets lies in the equity section. The "Fund Balance" account of a municipal general fund represents the net liquid assets available for appropriation and expenditure. The "Investment of the U.S. Government" account of a federal agency represents the net assets of the agency acquired from prior appropriations. It is true that the net assets of the federal agency are available for use by the agency, but they are not necessarily liquid.

A third difference between Illustration 19–1 and a municipal general fund balance sheet is related to the difference in equity accounts. The agency in Illustration 19–1 has inventories which amount to approximately one sixth of total assets. In a municipality such sizable inventories would ordinarily be accounted for in a separate fund; at a minimum, a Reserve for Inventories would be created by a charge to Fund Balance equal in amount to the inventory carrying value. No such segregation was made in the Investment of the U.S. Government account of the federal agency, because the objective of the federal agency accounting system is an accrual accounting portrayal, not a liquidity accounting portrayal.

A final difference, other than purely terminological ones, which may be noted between the balance sheet of the federal agency and one for a

municipality is the use of the current asset account title "Fund Balances with U.S. Treasury" instead of the more familiar title, "Cash." A federal agency, typically, does not have a bank account, as a municipality or a privately owned business would; rather, it has a claim against the United States Treasury. The relationships among agency accounts and Treasury accounts are illustrated below.

Illustrative transactions and entries

1. If the agency whose July 1, 19CY balance sheet is presented in Illustration 19-1 receives from the Congress a one-year appropriation for \$2,500,000, the Treasury Bureau of Accounts would prepare a formal notice to the agency after the appropriation act has been signed by the President and the following entries would be made:

Agency accounts:

Fund Balances with U.S. Treasury—19CY	2,500,000	
Unapportioned Appropriation—19CY		2,500,000

Bureau of Accounts:

Fund Balances with U.S. Treasury—19CY (agency)	2,500,000	
Undisbursed Appropriations and Funds (agency)		2,500,000

Treasurer of the United States:

No entry necessary.

2. When the Bureau of the Budget approves the quarterly apportionments, the agency would be notified. Assuming that, in the case illustrated, the Bureau of the Budget approved apportionments of \$600,000 for each quarter and reserved \$100,000 (see definition of *reserve* above), the agency would record the apportionments:

Agency accounts:

Unapportioned Appropriation—19CY	2,400,000	
Unallotted Apportionments—19CY		2,400,000

3. If, upon notification of the apportionments, the agency head allotted the entire first-quarter apportionment, the event would be recorded in the agency accounts only, in the following manner:

Agency accounts:

Unallotted Apportionments—19CY	600,000	
Unobligated Allotments—19CY		600,000

All three entries—for the annual appropriation, the apportionments by the Bureau of the Budget, and for the first-quarter allotment—would be made as of July 1, the first day of the current fiscal year, although in some years the appropriation bill may not have been actually enacted by that date. The substance of the three entries is that agency managers have new obligational authority totaling \$600,000 for the operations of the first quarter, and so must manage the activities of the agency accordingly, even though the Congress did appropriate \$2,500,000 for the year.

4. Operations of the agency during the first quarter are accounted for in the following entries:

a) Goods were ordered in the amount of $82,000, utilities and other fixed expenses for July were estimated as $10,000, payroll and fringe benefits for July were estimated as $108,000. Obligations were recorded for all commitments.

Agency accounts:

Unobligated Allotments—19CY	200,000	
Unliquidated Obligations—19CY		200,000

b) Accounts payable as of July 1 are paid by checks drawn on the Treasurer of the United States. Checks drawn are reported to the Bureau of Accounts, which then records the expenditures and credits "Checks Outstanding." The Treasurer enters the check when it is paid, and reports to the Bureau of Accounts checks paid, so that Checks Outstanding may be debited and Cash—Treasurer of the U.S. credited. The entries shown below give the net effect on the books of the Bureau of Accounts.

Agency accounts:

Accounts Payable	275,000	
Fund Balances with U.S. Treasury—19PY		275,000

Bureau of Accounts:

Expenditures—General and Special Funds—19PY	275,000	
Cash—Treasurer of the U.S.		275,000

Treasurer of the United States:

Checks Paid	275,000	
Cash in Bank		275,000

c) Goods and equipment ordered in 19PY, and shown as Unliquidated Obligations—19PY in Illustration 19–1, are received in 19CY and the liability is recorded. Note that two entries are required in the agency accounts: an entry to record the liquidation of the obligations and consequent expenditure of the prior year appropriation, and an entry to record assets acquired and liabilities incurred. The assumed analysis of the $400,000 unliquidated obligations is shown in the entry illustrated below:

Agency acounts:

Unliquidated Obligations—19PY	400,000	
Expended Appropriation—19PY		400,000
Inventories	150,000	
Equipment	250,000	
Accounts Payable		400,000

d) Payrolls for the first four weeks of the month were vouchered for payment in the amount of $59,000 for Department 1 of the agency, and $40,000 for Department 2. Utilities and fixed expenses in the amount of $10,000 were also vouchered for payment; $4,000 of this applied to activities of Department 1 and $6,000 to Department 2. Because the agency needs to relate costs to activities for managerial purposes, as well as to meet the requirements of the Bureau of the Budget and the Comptroller General, the agency is departmentalized according to activities performed. Costs are accumulated departmentally at the time they become certain in amount, rather than the time they are estimated.

Agency accounts:

Unliquidated Obligations—19CY	109,000	
Expended Appropriation—19CY		109,000
Department 1	63,000	
Department 2	46,000	
Accounts Payable		109,000

e) Materials used in the activities of Departments 1 and 2 amounted to *$120,000* and *$85,000*, respectively.

Agency accounts:

Department 1	120,000	
Department 2	85,000	
Inventories		205,000

f) Accounts payable in the amount of $460,000 were paid; $400,000 of this related to goods and equipment ordered in 19PY and received in 19CY (see transaction *c*), therefore it is chargeable against 19PY Fund Balances with U.S. Treasury; the remaining $60,000 of payments relate to the payroll for the first two weeks of the month ($50,000) and utilities and fixed expenses, $10,000.

Agency accounts:

Accounts Payable	460,000	
Fund Balances with U.S. Treasury—19PY		400,000
Fund Balances with U.S. Treasury—19CY		60,000

Bureau of Accounts:

Expenditures—General and Special Funds—19PY	400,000	
Expenditures—General and Special Funds—19CY	60,000	
Cash—Treasurer of the U.S.		460,000

Treasurer of the United States (when checks are presented):

Checks Paid	460,000	
Cash in Bank		460,000

g) In order to prepare accrual based financial statements for the month, the following items were taken into account: (1) Payroll for the last three days of the month, $5,000 for Department 1, and $4,000 for Department 2. (2) Invoices or receiving reports for goods received, but for which vouchers have not yet been prepared, $35,000; distributable to Department 1, $6,000; Department 2, $6,000; and Inventory, $23,000. (3) Depreciation of equipment, $25,000; $16,000 chargeable to Department 1, and $9,000 chargeable to Department 2.

Because the obligations for the items in parts (1) and (2) have become certain in amount and the relevant departmental cost accounts or inventory account can be charged, the amounts should be shown in financial statements as Accounts Payable, not as Unliquidated Obligations. It is customary to record the entry for the liquidation of the obligation and expenditure of the appropriation at this time even though no voucher is as yet prepared. Inasmuch as depreciation [part(3)] is not an expense chargeable against the appropriation, the accrual of depreciation expense does not affect any of the appropriation, apportionment, allotment, or obligation

accounts, but is recorded as in commercial accounting, by a debit to the departmental expense accounts and a credit to the Accumulated Depreciation account.

Agency accounts:

Department 1	27,000	
Department 2	19,000	
Inventory	23,000	
Accounts Payable		44,000
Accumulated Depreciation—Equipment		25,000
Unliquidated Obligations—19CY	44,000	
Expended Appropriation—19CY		44,000

b) In addition to the adjusting entries, illustrated above, closing entries should be made to facilitate the preparation of accrual based financial statements. (For monthly statements the following entries ordinarily are made only in worksheet form). The only accounts of the hypothetical federal agency which should be closed are the two Expended Appropriation accounts, which represent additions to the equity account, Investment of the U.S. Government; and the departmental cost accounts, which represent decreases in the equity account.

Agency accounts:

Expended Appropriation—19PY	400,000	
Expended Appropriation—19CY	153,000	
Investment of the U.S. Government		553,000
Investment of the U.S. Government	360,000	
Department 1		210,000
Department 2		150,000

Month-end financial statements

After all the entries illustrated above have been made, the federal agency balance sheet for July 31, 19CY shown in Illustration 19–2 can be prepared.

In Illustration 19–1 it was assumed that all of the 19PY appropriation had been apportioned, allotted, and obligated; this assumption was made at that point in order to focus the attention of the reader upon major differences between balance sheets for federal agencies and those for municipalities. The assumption was realistic, however, because the agency's authority to obligate a one-year appropriation expires at the end of the year for which the appropriation was made. Fund Balances with the U.S. Treasury pertaining to a one-year appropriation remain available for payment of liabilities and obligations incurred under that appropriation for a limited period of time; unneeded balances should be returned to the general fund control promptly without waiting for expiration of the time-limit.

All accounts relating to the unexpended appropriation for the federal agency for 19CY are net worth accounts, and are, for that reason, grouped in Illustration 19–2. The appropriations for 19PY and 19CY expended in July, 19CY, are also net worth, or equity, in character, but

Illustration 19–2

FEDERAL AGENCY

Balance Sheet
July 31, 19CY

Assets

Current Assets:		
Fund balances with U.S. Treasury—19CY	$2,440,000	
Inventories	578,000	
Total Current Assets		$3,018,000
Fixed Assets:		
Equipment	$3,250,000	
Less: Accumulated depreciation	625,000	
Total Fixed Assets		2,625,000
Total Assets		$5,643,000

Liabilities, Appropriations, and Investment of the U.S. Government

Current Liabilities:		
Accounts payable	$ 93,000	
Total Current Liabilities		$ 93,000
Appropriation accounts—19CY:		
Unapportioned appropriation	$ 100,000	
Unallotted apportionments	1,800,000	
Unobligated allotments	400,000	
Unliquidated obligations	47,000	
Total Unexpended Appropriations—19CY		2,347,000
Investment of the U.S. Government		3,203,000
Total Liabilities, Appropriations, and Investment of the U.S. Government		$5,643,000

differ from the unexpended appropriation in that the expenditure of appropriations has resulted in the acquisition of net assets for the use of the federal agency. The expended appropriation accounts were, therefore, closed to the Investment of the U.S. Government account and are a part of that balance in Illustration 19–2. It is customary to prepare a statement detailing the changes in the Investment of the U.S. Government account for the period; one form of this statement is shown as Illustration 19–3.

In the example given, the federal agency received no fees, rents, interest, or other revenues; consequently, no statement of operations need be

Illustration 19–3

FEDERAL AGENCY

Statement of Changes in the Investment of the United States Government
for July, 19CY

Investment of the U.S. Government, July 1, 19CY		$3,010,000
Add: Expended appropriation—19PY	$400,000	
Expended appropriation—19CY	153,000	553,000
Total		$3,563,000
Less: Cost of activities performed in July		360,000
Investment of the U.S. Government, July 31, 19CY		$3,203,000

prepared. In order that agency operating management, and others interested in the efficient operation of the agency, can be informed of the costs of agency activities performed in July, a Statement of Costs of Activities Performed, shown as Illustration 19–4, is prepared. It is assumed in this example that Department 1 performs one activity and that Department 2 performs another, so that detailing the costs by departments shows the costs of performing activities.

The costs of activities performed are reported in Illustration 19–4 on the accrual basis, and therefore represent the *consumption* during the period of goods and services in the performance of agency activities. Financial management of the agency is concerned also with reporting in the same manner as agency budgets were prepared, so that operating

Illustration 19–4

FEDERAL AGENCY

Statement of Costs of Activities Performed
for July, 19CY

Department 1:		
Salaries and wages	$ 64,000	
Materials used	126,000	
Utilities and other expenses	4,000	
Depreciation	16,000	
Total Department 1 activity costs for July, 19CY		$210,000
Department 2:		
Salaries and wages	$ 44,000	
Materials used	91,000	
Utilities and other expenses	6,000	
Depreciation	9,000	
Total Department 2 activity costs for July, 19CY		150,000
Total Federal Agency Activity Costs for July, 19CY		$360,000

results may be compared with planned results. If the budget of the agency is prepared on the obligation basis, reports should show amounts authorized, total obligations incurred (subdivided between expenditures and unliquidated obligations) and the unobligated balance of each authorization. Expenditure data should be in terms of accrual accounting if inventories are significant. That is, an expenditure should be recognized when goods are received *by* an agency or services are performed *for* the agency. In the continuing example of the federal agency, and in general, the accrued expenditure total is the same as the total expended appropriation figures by years. This relationship emphasizes that an expenditure is deemed to take place at the time goods or services are received, regardless of whether cash is disbursed.

Accrued expenditures are related to obligations through the change in the balance of unliquidated obligations. For example, in the federal agency during July, goods and services ordered (obligations incurred) amounted

Illustration 19-5

Accrued expenditures for July	$553,000
Less: Expenditures for equipment.	250,000
Expenditures for salaries, materials and other expenses	$303,000
Add: Inventories, July 1	250,000
Goods and services available for use	$553,000
Less: Inventories, July 31	218,000
Goods and services used in July, exclusive of depreciation.	$335,000
Add: Costs not chargeable to appropriation—depreciation.	25,000
Cost of Activities Performed (Illustration 19-4)	$360,000

to $200,000; goods and services ordered before July and not yet received on July 1 (unliquidated obligations, July 1) totaled $400,000. Thus, a total of $600,000 worth of goods and services had been ordered. At the end of July, $47,000 worth were still on order (unliquidated obligations, July 3). Therefore, $553,000 worth of goods and services were received in July (accrued expenditures). The relationship of accrued expenditures to costs of activities performed by the federal agency in July is shown in Illustration 19-5.

Control of obligations

The journal entries illustrated earlier in this chapter are based on the assumption that the agency *prevalidates* its obligations. Prevalidation implies that each proposed obligation be compared with the balance of Unobligated Allotments to determine that the balance is sufficient to allow the release of the proposed obligation. Thus, under a system of prevalidation it is necessary to record in an obligation control register each obligation document before it is released by the agency. A separate register should be kept for each appropriation. The register may be used as a book of original entry; the total dollar amount of obligations recorded during a period is the amount to be debited to Unobligated Allotments and credited to Unliquidated Obligations. It is reasonable, also, to record in the obligation control register the liquidation of each obligation, so that a listing of the obligations issued but not yet liquidated, as shown by the register, will agree in total with the balance of the Unliquidated Obligations account. Thus the register, and the documents supporting it, serve as a subsidiary ledger. Illustration 19-6 shows one form of obligation control register which may be used.

Since invoices received are not always exactly equal in amount to the related obligations documents it is necessary, in the system described, to record in the register adjustments to bring the estimated expenses into accord with the actual. If any obligation documents are canceled, the cancellation should also be recorded in the register to enable routine correction of the accounts.

Illustration 19-6

FEDERAL AGENCY
Obligation Control Register
Appropriation 19CY

Liquidation		*Obligation*		*Explanation*	*Debit Unobligated Allotments Credit Unliquidated Obligations*	*Unobligated Allotment Balance*
Date	*Ref.*	*Date*	*Ref.*			
		July 1	AA-1	1st Qr. Allotment		$600,000
		July 2	PO6601	Purchases—XYZ Co.	$ 48,000	552,000
		July 2	PO6602	Purchases—ABE Co.	34,000	518,000
July 23	Vo. 663	July 2	FE	Utilities and Fixed Exp.	10,000	508,000
July 17	Vo. 608	July 2	WP-1	Payroll and P/R Taxes—July	108,000	400,000

Prevalidation of obligations, and the use of the obligation control register as a book of original entry, are not requirements of the Comptroller General. In fact, in accord with the emphasis upon accounting as an aid to agency financial management, the Comptroller General, through the General Accounting Office, encourages agencies to simplify accounting systems to the maximum extent practicable, consistent with good control and the reporting requirements of the Treasury and the Bureau of the Budget. One agency makes no use at all of the Unliquidated Obligations account during an accounting period; all obligation documents are recorded as credits to Accounts Payable. Whenever it is necessary to prepare financial statements, the documents which comprise the subsidiary ledger of Accounts Payable are sorted into those for undelivered orders (Unliquidated Obligations) and those properly classifiable as Accounts Payable, and an adjusting journal entry is prepared so that the agency's financial statements are on the same basis as those of other agencies.

Statements of the Treasurer of the United States

The Treasurer of the United States acts as a banker for the federal government, as is illustrated by the federal agency example discussed in preceding pages. The Treasurer issues a *Daily Statement of the U.S. Treasury* which reports total monetary assets and liabilities in the Treasurer's account, the deposits in and withdrawals from the account, and the effect of the day's operations on the public debt. A more detailed statement showing receipts and disbursements is published monthly, as is a detailed statement of public debt outstanding. The Treasurer also issues an

Illustration 19–7

STATEMENT OF BUDGET APPROPRIATIONS, DISBURSEMENTS AND BALANCES, FISCAL YEAR 19CY
(in millions of dollars)

	1	2	3	4	5	6	7	8	9	10
					Balances June 30, 19CY					
								Receivables (deduct)		
Organization	Balances June 30, 19PY of Undisbursed Appropriations, and other Authorizations	Appropriations, Authorizations and other Obligational authority	Disbursements (net)	Withdrawals and Transfers	Undisbursed Appropriations and other Authorizations	Unliquidated Obligations	Accounts Payable and Accrued Liabilities	Reimbursements Earned and Refunds	Reimbursements Anticipated	Unobligated
Department of Defense										
Military functions:										
Appropriations	31,204	49,277	48,205	938	31,482	28,847	704	3,302	3,985	9,218
Reappropriations		144								
Civil functions:										
Appropriations	344	1,016	999	14	347	299	70	48	42	68
Authorization to expend from debt receipts	10				10					10
Total Department of Defense	31,558	50,437	49,204	952	31,839	29,146	774	3,350	4,027	9,296

Treasury consolidates only cash asset and liability and cash operations accounts, on an historical basis. Agency accrual accounting information is used by the Bureau of the Budget as an aid to the President in planning and controlling the activities and programs of the executive agencies.

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QUESTIONS

1. What reasons, other than historical accident, might exist for the division of responsibility for federal financial management among the Comptroller General, the Director of the Bureau of the Budget, the Secretary of the Treasury, and the heads of executive agencies?

2. Describe concisely the role each of the following plays in federal financial management:
   a) Director of the Bureau of the Budget.
   b) Secretary of the Treasury.
   c) Comptroller General.
   d) Chairman of the Civil Service Commission.
   e) Head of an executive agency.
3. What is the significance of Public Law 784 of the 81st Congress?
4. Compare the degree of adherence to the basic concepts of accrual accounting assumed in the principles prescribed by the Comptroller General with that degree of adherence assumed in the recommendations of the National Committee on Governmental Accounting.
5. What is the significance in federal financial management of the central accounts maintained by the Bureau of Accounts of the Department of the Treasury?
6. What is the significance in federal financial management of the concept of *obligations?*
7. What is the significance in federal financial management of the concept of *cost?*
8. Compare and contrast the nature of the Investment of the U.S. Government account with that of the Fund Balance account used by municipalities.
9. Distinguish between the terms, *allotment, allocation, apportionment,* and *reserve,* as used in the federal government.

PROBLEMS

1. The trial balance as of May 31, 19CY, of the Atomic Authority, an agency of the executive branch of the federal government, is shown below:

	Debit	*Credit*
Fund balances with U.S. Treasury	$ 1,581,449	
Inventories	941,314	
Plant and equipment	7,651,633	
Accumulated depreciation—plant and equipment		$ 2,332,628
Construction work in progress	581,818	
Accounts payable		327,437
Advances from other federal agencies		43,518
Unapportioned appropriations—19CY		100,000
Unallotted apportionments—19CY		150,000
Unobligated allotments—19CY		650,000
Unliquidated obligations—19CY		364,131
Expended appropriations—19CY		2,630,038
Investment of the U.S. government, July 1, 19CY		6,547,000
Production costs	1,502,496	
Development costs	507,343	
Research costs	286,866	
Small program costs	91,833	
	$13,144,752	$13,144,752

a) Prepare a balance sheet for the Atomic Authority, as of May 31, 19CY.
b) Prepare a statement of changes in Investment of the U.S. government, for the period July 1–May 31, 19CY.
c) If the amount of depreciation included in 19CY costs is $242,000 and no equipment was purchased, compute (1) total activity costs for the 11 months ended May 31, (2) total accrued expenditures for that period. The July 1, 19CY, inventory amounted to $457,814.

2. The Illdiana Valley Commission was authorized by the Congress to start operations on July 1 of a certain year.

a) Record the following transactions in general journal form, as they should appear in the accounts of the Illdiana Valley Commission. Use expense accounts named to describe the nature of each expense.

(1) The Illdiana Valley Commission received official notice that the one-year appropriation passed by the Congress and signed by the President amounted to $6,000,000 for operating expenses.
(2) The Bureau of the Budget notified the Commission of the following schedule of apportionments: first quarter, $2,000,000; second quarter; $1,500,000; third quarter, $1,250,000; and fourth quarter, $1,250,000.
(3) The Illdiana Valley Commissioner allotted $1,000,000 for the first month's operations.
(4) Obligations were recorded for salaries and fringe benefits, $370,000; furniture and equipment, $300,000; supplies, $250,000; rent and utilities, $50,000.
(5) Payroll for the first two weeks in the amount of $150,000 was paid.
(6) Invoices approved for payment totaled $390,000; of the total, $200,000 was for furniture and equipment, $150,000 for supplies, and $40,000 for rent.
(7) Liability was recorded for the payroll for the second two weeks, $160,000; and for the FICA taxes for the four weeks, $31,000.
(8) Invoices totaling $380,000 were paid.
(9) Accruals recorded at month-end were: salaries $29,000, and utilities $10,000. Supplies costing $40,000 were used during the month. No depreciation is to be charged by this agency.
(10) Necessary closing entries were prepared.

b) Show in general journal form any entries that would be made for the above transactions by (1) the Bureau of Accounts of the Treasury, and (2) the Treasurer of the United States.
c) Prepare a balance sheet for the Illdiana Valley Commission as of July 31.
d) Prepare a statement of costs of activities performed in July.

3. Compute the missing amount in the following list of accounts and prepare a balance sheet for the agency.

Accounts Payable	$ 287,941
Accounts Receivable	46,498
Accumulated Depreciation—Plant and Equipment	2,293,980
Expended Appropriations	2,547,338
Fund Balances with U.S. Treasury	1,204,549
Inventories	845,297
Investment of the U.S. Government	?
Operating Costs	2,478,232
Plant and Equipment	7,364,671

5. *a*) From the information tabulated on the opposite page, determine the June 30, 19CY balance of Undisbursed Appropriations, and the amount of this balance which is unobligated, for the organizations shown.
   b) Which of the two agencies probably receives the larger no-year (or multiple-year) appropriation? Why?
   c) Which of the two agencies probably has the larger construction program? Why?

Chapter 20

Institutional Accounting: Hospitals

In years gone by, many hospitals were operated with little regard for the precepts of good financial management: philanthropists could be relied upon to cover operating deficits and provide new buildings and equipment. Over the last three decades, the increasing difficulty of raising funds to cover deficits and building programs has forced the majority of hospitals to adopt a businesslike approach to the management of their financial resources. This change of attitude has forced a commensurate improvement in the quality of hospital accounting. A second important factor which has forced an improvement in hospital accounting over the last 30 years is the rapid growth in popularity of third-party payment plans, such as Blue Cross. Third-party payments are the source of well over half of the revenue of many hospitals. Third-party payors in many jurisdictions have required hospitals to utilize uniform accounting and statistical definitions and reports. The impact of Medicare is forcing those hospitals which had heretofore resisted change to adopt good financial management techniques.

Leadership in the improvement of hospital accounting has been taken by the American Hospital Association and the Hospital Financial Management Association. The former has provided accounting manuals for the use of its member hospitals and others. Although the systems published by the association have not been exactly fitted to hospitals of all classes, they have embodied general principles which, with adaptations and modifications, can be used by a majority of hospitals staffed with competent accounting personnel. The use of a uniform reporting system contributes to the efficiency of management because it permits dependable comparison of financial and operating statistics with those of other hospitals functioning under similar conditions.

GENERAL OUTLINE OF HOSPITAL ACCOUNTING

Accounting for hospitals bears some similarity to accounting for municipalities, in that the funds used are somewhat alike. Furthermore,

publicly supported hospitals may be required to operate budgetary accounts and to incorporate these in their accounting and reporting systems. Public support of hospitals may take the form of direct contributions or of payments on behalf of patients eligible for service at public expense, or both. In well-developed accounting systems for hospitals, major attention is given to provisions for measuring costs of services rendered.

A distinguishing feature of hospital accounting systems is the large number of ancillary records which must be kept in support of the formal books of entry. In addition to the usual collection of check stubs, invoices, expense bills, employees' earning records, insurance registers, etc., typical of modern business, hospitals must keep detailed records of patients. These must include exact information about the time of admission and discharge, and a detailed record, with supporting evidence wherever possible, of all chargeable services received by the patient during his stay, in addition to complete medical records for each patient.

The chart of accounts recommended by the American Hospital Association follows the principles of fund accounting. The following funds are recommended:

Operating Fund	Plant Fund
Specific Purpose Fund	Construction Fund
Endowment Fund	Other Funds

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GENERAL OUTLINE OF HOSPITAL ACCOUNTING

Accounting for hospitals bears some similarity to accounting for municipalities, in that the funds used are somewhat alike. Furthermore,

5 Construction Fund
6–9 Other Funds

The third digit of a balance sheet account number shows the account classification:

0 Cash
1 Investments
2 Receivables
3 Inventory
4 Prepaid Expenses
5 Land, Buildings, and Equipment
6 Accumulated Depreciation
7 Current Liabilities
8 Noncurrent Liabilities
9 Fund Balance

The AHA does not prescribe the use of the two digits to the right of the decimal point in the case of balance sheet accounts, but illustrates their possible use. For example, account number 112 indicates an asset (1– –); of the operating fund (-1-); specifically, receivables (– –2). If a zero is used as a fourth digit to indicate inpatients, and a 1 is used as the fifth digit to indicate that the patients have been discharged from the hospital, the full account number would be 112.01.

In order to promote effective financial management of hospital resources, the AHA chart for revenue and expense accounts is based upon the concepts of responsibility accounting. Accordingly, the second and third digits of the account numbers are used to indicate the organizational unit of the hospital which is responsible for the revenue or expense. Thus, since 30 indicates a pediatric nursing unit, the account number for revenue from the pediatric nursing unit would be 330, and the account for expense of the same unit would be 630. In the case of revenue accounts the fourth and fifth digits, the AHA suggests, might be used to indicate the type of patient, type of service, financial status, or type of accommodation. The fourth and fifth digits of an expense account number would be used to denote the nature of the expense.

Since the AHA chart of accounts was prepared principally for use by nongovernmental hospitals, the omission of budgetary accounts is to be expected. However, the structure can be adapted to use by public hospitals. If a normal budget recorded in the accounts is not required, no material change in the chart is necessary. Should either the law or the policy of the hospital require the incorporation of budgetary transactions in the ledger, it may be accomplished by extension of the operating fund balance sheet section, although some of the budgetary accounts are not actually of the usual balance sheet classification. Specifically, there can be added, after balance sheet assets in the ledger, accounts for estimated revenues, encumbrances, and appropriation expenditures. After the operat-

ing fund liability accounts in the ledger may be added accounts for reserve for encumbrances, income, and appropriations. The location of budgetary accounts in the positions suggested for them is not entirely consistent with their classifications but is probably more convenient than any other which might be found. An alternative to this inconsistency is to carry budgetary accounts as an independent unit, using the main or proprietary ledger for administration and control purposes, and operating the budgetary unit on a memorandum basis to comply with legal requirements.

The bulk of entries for hospital transactions are of a more or less routine nature and need not be explained and illustrated here. Some special practices and situations characteristic of hospital accounting, however, are discussed below.

Operating fund transactions

Accounting for amounts due from patients presents somewhat more difficulty than accounting for receivables of a business firm. While patients are in the hospital they, typically, receive many services for which separate charges are made. A few of the patients will pay their entire account; large numbers will pay a portion and a third-party will pay the remainder. Each third-party payor has a different set of rules governing the manner in which it is to be billed and the amounts it will pay for various services. Accordingly, it is desirable for a hospital to keep a number of subsidiary ledgers of accounts receivable, such as "Patients In House," "Private Pay Patients Discharged," "Blue Cross Patients," "Medicare Patients," "Commercial Insurance Patients," and "Welfare Patients." No distinction between notes and open accounts is made in the ledger, although subsidiary records may be kept to show the analysis, if desired.

A typical entry for recording a charge to patients' receivables would be as follows:

112 Inpatient Receivables—In House	500	
343 Revenue from Daily Patient Services—Psychiatric		500

It is important to note that although a patient may be entitled to service at a reduced rate, he should be charged at the standard price for the services he receives. Adjustments to the net price are considered as deductions from revenues, rather than as expenses. Deductions from revenue arise because of charity service, courtesy discounts to employees or others, or adjustments resulting from contracts with third-party payors. For example, assuming a total reduction of $35 because of contractual agreement, the following entry would be made:

510 Contractual Adjustments	35	
112 Inpatient Receivables—Blue Cross		35

According to long-standing hospital custom, the provision for bad debts is also classified as a revenue deduction, rather than as an operating expense.

Specific purpose fund transactions

A specific purpose fund is used to account for assets received from an outside source, to finance a specific project; thus it is comparable with an unrestricted trust fund, as discussed in Chapter 8.

As income is earned on specific purpose fund assets, it is to be recorded as an increase in the specific purpose fund balance. The fund exists, however, to support particular activities of the hospital; in recognition of this fact, the Fund Balance is to be debited and Due to Operating Fund credited, to indicate that cash in the amount of the income is to be transferred from the specific purpose fund to the operating fund. The corresponding entry in the operating fund accounts is a debit to Due from Specific Purpose Fund and a credit to Income Transfers from Specific Purpose Fund.

It is possible that disbursements of specific purpose fund cash may be made for operating fund assets or expenses (or even for plant fund assets, if consistent with the terms of the donor of the specific purpose fund assets). Assuming $250 of specific purpose fund cash was disbursed for nursing education expenses, the following entries would be made:

Specific Purpose Fund:

229 Specific Purpose Fund Balance	250	
120 Specific Purpose Fund Cash		250

Operating Fund:

691 Diploma School of Nursing	250	
572 Income Transfers from Specific Purpose Fund		250

It is also true that disbursements may be made from operating fund cash for purposes which are ultimately to be covered by specific purpose fund income transfers. In such cases, the following entries should be made, assuming the same amounts and expenses as in the preceding example:

Operating Fund:

691 Diploma School of Nursing	250	
110 Operating Fund Cash		250
(To record the disbursements.)		
112.90 Due from Specific Purpose Fund	250	
572 Income Transfers from Specific Purpose Fund		250
(To record the receivable from the specific purpose fund.)		
110 Operating Fund Cash	250	
112.90 Due from Specific Purpose Fund		250
(To record receipt of reimbursement from specific purpose fund.)		

Specific Purpose Fund:

229 Specific Purpose Fund Balance	250	
227.90 Due to Operating Fund		250
(To record disbursement by operating fund to be reimbursed.)		
227.90 Due to Operating Fund	250	
120 Specific Purpose Fund Cash		250
(To record payment of liability to operating fund.)		

Separate subaccounts should be maintained for the balance of each individual specific purpose fund.

Endowment fund transactions

The hospital endowment fund is used to account for donated assets, the principal of which must be retained intact. The income from hospital endowment fund assets is expendable as the donor directed—either for general operating purposes, or for named items or projects. Thus, the hospital endowment fund is a trust fund, as discussed in Chapter 8. The discussion in that chapter concerning the problems involved in distinguishing between principal and income are relevant, also, to hospital endowment funds.

In order to be able to show that the terms of each endowment have been complied with, it is desirable to keep records for each separate endowment. Ordinarily, such records may be in memorandum form, or may be kept as subsidiary accounts controlled by the balance sheet accounts provided for the Endowment Fund by the American Hospital Association manual. Asset accounts provided are cash, investments, and receivables. Donated securities and real estate are to be recorded in the endowment fund at fair market value at date of acquisition; investments purchased by the fund are to be recorded at cost. Separate accounts are provided for current liabilities and long-term liabilities; the latter consist mainly of mortgages outstanding against endowment fund real estate. The Endowment Fund Balance account is to be subdivided into two accounts: Endowment Fund Principal—Income Unrestricted, and Endowment Fund Principal—Income Restricted.

In order to simplify portfolio management, obtain a greater degree of investment diversification for individual endowments, and reduce brokerage, taxes, and bookkeeping expense, it is desirable to *pool* the individual endowments for investment purposes. When investments are pooled, or merged, earnings, and gains and losses on sales, are allocated on the basis of the relative contributions of each fund to the pool. To insure an equitable division of earnings, gains, and losses, it is customary to revalue the assets of *each* endowment to their fair market value as of the time an endowment is brought into the pool or removed from the pool.

The following entries illustrate recommended practices for accounting for investments of hospital endowment funds, both pooled and nonpooled. (Some transactions illustrated could affect one or more other funds in addition to those assumed in the examples.)

Unpooled investments

1. Forty thousand dollars, par value, of National Power Company 4½ percent bonds are purchased at 102½ and accrued interest of $450:

Endowment fund:

Investments	41,000	
Cash in Bank—Unrestricted		41,000

Operating Fund (or other fund designated to receive the income from this investment):

Income Transfers from Endowment Fund	450	
Operating Fund Cash		450

2. Semiannual interest of $900 is collected on the investment, and $25 of the premium is amortized:

Endowment Fund:

Cash In Bank—Unrestricted	25	
Investments		25

Operating Fund:

Operating Fund Cash	875	
Income Transfers from Endowment Fund		875

From the above entries, it will be noted that amortization of premium on investments is a funded transaction; that is, to replace the amount of premium amortized in the principal fund, the operating fund supplies an equal amount of cash, thus relieving the endowment fund of a principal reduction which would result from a mere book entry.

3. Twenty thousand dollars, par value, of city of Y serial 3's are purchased at 98 and accrued interest of $280:

Endowment Fund:

Investments	19,600	
Cash in Bank—Unrestricted		19,600

Operating Fund:

Income Transfers from Endowment Fund	280	
Operating Fund Cash		280

4. Ten thousand dollars, par value, of bonds, on which there was a balance of unamortized premium of $1,100 at the last interest date, are sold for 107 and accrued interest of $160. Premium amortization accumulated since the last interest date is $65:

Endowment Fund:

Cash in Bank—Unrestricted	10,765	
Endowment Fund Principal—Income Unrestricted	335	
Investments		11,100

Operating Fund:

Operating Fund Cash	95	
Income Transfers from Endowment Fund		95

The loss charged to the Endowment Fund Principal—Income Unrestricted account is:

Par value of investment		$10,000
Unamortized premium—last interest date	$1,100	
Less: Amortization since last interest date	65	1,035
Book value of investment at date of sale		$11,035
Selling Price		10,700
Loss on sale		$ 335

Accounting for pooled investments

The first accounting operation in the conversion of investment from a nonpool to a pool basis is the valuation of each fund's contribution to the pool as of the formation date. This is ordinarily accomplished by ascertaining the market value of securities or other assets to be transferred by each fund and, in effect, "selling" them to the pool at the new valuation. Differences between book value and market value are treated as gains or losses of the individual funds and credited or debited to their respective balances. Accounting for the creation of a pool, and its operations, is illustrated in the following example:

Memorial Hospital has two small endowments which are to be pooled for investment purposes. At the date the pool is to be created, the endowment given by Mr. Smith consists of securities recorded by the hospital at fair market value at date of acquisition, \$5,920; accrued interest on those securities, \$90; and interest received in cash and not yet transferred to the operating fund, \$90. The endowment from Mrs. Jones was received, originally, in cash in the amount of \$7,000. Securities costing \$6,760 were purchased from this cash, leaving \$240 uninvested principal cash. The hospital plant fund, rather than the operating fund, is the income benficiary of the Jones endowment. At the date the pool is to be created, there is \$140 accrued interest; all interest received in cash has been transferred to the plant fund.

From the data above it is apparent that the subsidiary records of the hospital endowment fund show the balance of the unrestricted Smith endowment to be \$5,920, the amount due the operating fund to be \$180, the balance of the restricted Jones endowment to be \$7,000, and the amount due the plant fund \$140, as of the date the pool is to be created.

On the date the pool is created the market value of the investments of each endowment should be determined. Assuming that the market value of the Smith investments is \$5,800, and the market value of the Jones investments is \$6,960, the following entry should be made to restate the two endowments to fair market value as of the time they are pooled:

Endowment Fund Principal—Income Unrestricted	120	
Investments	80	
Endowment Fund Principal—Income Restricted		200

The above entry in the Investments control accounts shows the net effect of the increase in the carrying value of the Jones endowment investments and the decrease in the carrying value of the Smith endowment investments; the appropriate facts would be recorded in the proper subsidiary accounts. Assuming for the sake of simplicity that the Memorial Hospital has no other endowments, the balance sheet of the Endowment Fund immediately prior to pooling would be:

MEMORIAL HOSPITAL

Endowment Fund Balance Sheet
As of Date Pool Is to Be Created

Assets		*Liabilities and Capital*	
Cash in bank—unrestricted	$ 90	Due to operating fund	$ 180
Cash in bank—restricted	240	Due to plant fund	140
Investments	12,760	Total Liabilities	$ 320
Accrued interest	230	Fund principal—income unrestricted	$ 5,800
		Fund principal—income restricted	7,200
Total Assets	$13,320	Total Liabilities and Capital	$13,320

Inasmuch as the $240 cash relating to the Jones endowment is a part of the principal, it is proper to transfer it to the pool at the same time the Jones endowment investments are transferred. The entry for the creation of the pool, therefore, is:

Cash—Pool	240	
Investments—Pool	12,760	
Cash in Bank—Restricted		240
Investments		12,760

There is, of course, no point in transferring to the pool the $90 cash income received on the Smith endowment, the accrued interest on both endowments, and the related liabilities. When income is received in cash after creation of the pool, however, it is necessary to determine how much of the cash is a collection of the accruals (remembering that the Smith endowment income is unrestricted and the Jones endowment income is restricted), and how much cash represents income of the pool, to be distributed later. For example, assuming that $295 cash is received from the investments now pooled, the following entry should be made:

Cash—Pool	65	
Cash in Bank—Unrestricted	90	
Cash in Bank—Restricted	140	
Undistributed Earnings of Pooled Investments		65
Accrued Interest Receivable		230

Any subsequent receipt of cash income from pooled investments would be debited to Cash—Pool and credited to Undistributed Earnings of Pooled Investments. Earnings of pooled investments are distributed to the proper recipients on the basis of the relative contributions of the various member funds of the pool.

When the liabilities to the operating fund and plant fund are paid, the endowment fund would make the following entry:

Due to Operating Fund	180	
Due to Plant Fund	140	
Cash in Bank—Unrestricted		180
Cash in Bank—Restricted		140

The cooperative nature of investment pooling is well demonstrated by the procedure employed in accounting for gains and losses on pooled investments. No attempt is made to identify gains or losses on individual investments with the particular funds which contributed the investments; but all such transactions are summarized in one account, the Reserve for Realized Gains and Losses on Pooled Investments. To illustrate the mechanics of this plan, let it be assumed that pooled investments carried on the books at $2,900 are sold for $2,770 cash. The proceeds, plus $200 cash put into the pool from the Jones endowment, are reinvested. If both transactions are journalized, the entries would be:

Cash—Pool	2,770	
Reserve for Realized Gains and Losses on Pooled Investments	130	
Investments—Pool		2,900

Investments—Pool	2,970	
Cash—Pool		2,970

Had a gain resulted from the sale of pooled investments, a credit to the reserve would have been required. Periodically, the net realized gain or loss, the balance of the reserve account, is distributed to the pooled endowments on the basis of their relative contributions. If the Memorial Hospital had only the transactions illustrated above, the $130 loss would be distributed 58/130 to the Smith endowment principal, and 72/130 to the Jones endowment principal (because the contributions were $5,800 and $7,200, respectively). The following entry would result:

Endowment Fund Principal—Income Unrestricted	58	
Endowment Fund Principal—Income Restricted	72	
Reserve for Realized Gains and Losses on Pooled Investments		130

Comparable in effect to a corporate stock dividend, the above entry would make no relative change in the equities of the individual endowments, nor would their relative shares in pool income be increased. The elimination of a debit balance in the reserve likewise would only proportionally reduce the balances of individual funds; it would have no influence on income-sharing ratios. Therefore, the entry to distribute the balance of the Undistributed Earnings account, assuming that accrued interest in the amount of $260 had been recorded at year-end as a debit to Accrued Interest and credit to the Undistributed Earnings account, is:

Undistributed Earnings of Pooled Investments	325	
Due to Operating Fund		145
Due to Plant Fund		180

The balance sheet of the Endowment Fund after the illustrated entries have been posted appears below.

MEMORIAL HOSPITAL
Endowment Fund Balance Sheet
As of (Year-End)

Assets		*Liabilities and Capital*	
Cash—pool	$ 105	Due to operating fund	$ 145
Investments—pool	12,830	Due to plant fund	180
Accrued interest	260	Total Liabilities	$ 325
		Principal—income unrestricted	5,742
		Principal—income restricted	7,128
Total Assets	$13,195	Total Liabilities and Capital	$13,195

Plant fund transactions

Hospital plant funds, accounted for in accord with American Hospital Association recommendations, record: long-lived assets, such as land, buildings, fixed equipment, major movable equipment, and minor equipment; accumulated depreciation; current assets held for expansion, replacement, or improvement of long-lived assets; long-term debt incurred in connection with the acquisition of plant fund assets; current liabilities such as accrued interest payable on the long-term debt; and the fund balance accounts. Fund balance accounts provided are: Fund Balance Invested in Plant; Fund Balance Reserved for Plant Replacement, Improvement, and Expansion—Donor Restricted; Fund Balance Reserved for Plant Replacement, Improvement, and Expansion—Restricted by Board Action; and Unrealized Appreciation of Plant Assets.

The reader will note from the above accounts that plant fund accounting recommended by the American Hospital Association differs from fixed asset accounting procedures recommended by the National Committee on Governmental Accounting in that depreciation is to be recorded. A further variation from fund accounting theory, and a variation from generally accepted principles of financial accounting for profit-seeking businesses, is indicated by the final account title listed above: Unrealized Appreciation of Plant Assets. The AHA manual provides that plant fund assets are to be recorded at cost, if purchased, or at fair market value if received as a gift; however, the manual promotes the suggestion that hospitals periodically engage "qualified" appraisal firms to determine the "current replacement cost" of the plant assets. The appraisal figure is to be recorded in the plant fund asset accounts and in the Unrealized Appreciation equity account. Subsequent provisions for depreciation are to be computed on the basis of the recorded "current replacement cost."

Purchase of plant assets. When plant fund cash is disbursed for long-lived assets, the following entries are made (assume that fixed equipment costing $750 is purchased):

Plant Fund (only fund affected):

Fixed Equipment	750	
Plant Fund Cash		750
Fund Balance Reserved for Plant Improvement and Expansion	750	
Fund Balance Invested in Plant		750

Some hospitals do not transfer cash to the plant fund, but purchase fixed assets directly from operating fund cash. In such a case the purchase of additional fixed equipment in the amount of $750 would be recorded by entries in both funds:

Operating Fund:

Operating Fund Balance	750	
Operating Fund Cash		750

Plant Fund:

Fixed Equipment	750	
Fund Balance Invested in Plant		750

Depreciation. Entries to amortize fixed asset costs are recorded both in the plant fund and in the operating fund. For example, assuming that depreciation of buildings is $1,000, the following entries should be made:

Operating Fund:

Provision for Depreciation	1,000	
Due to Plant Fund		1,000

Plant Fund:

Fund Balance—Invested in Plant	1,000	
Accumulated Depreciation of Buildings		1,000
Due From Operating Fund	1,000	
Fund Balance Reserved for Plant Improvement and Expansion		1,000

To assure the availability of money for improvement, replacement, and expansion of plant, it is a desirable practice for hospitals to transfer cash from the operating fund to the plant fund in amounts at least equal to periodic depreciation charges. Entries to record the transfer of cash in an amount equal to the depreciation charge are:

Operating Fund:

Due to Plant Fund	1,000	
Operating Fund Cash		1,000

Plant Fund:

Plant Fund Cash	1,000	
Due from Operating Fund		1,000

Sale or other disposal of plant assets. The removal of hospital fixed assets from the accounts, whether because of replacement, retirement, destruction, or any other reason, involves the following entries, as recommended by AHA (assume major movable equipment costing $1,000, with $900 accumulated depreciation, is sold for cash for $150):

Plant Fund:

Plant Fund Cash	150	
Accumulated Depreciation of Major Movable Equipment	900	
Major Movable Equipment		1,000
Gain on Disposal of Plant Assets		50
Fund Balance Invested in Plant	150	
Fund Balance Reserved for Plant Improvement and Expansion		150

Operating Fund:

Operating Fund Balance	50	
Gain on Disposal of Assets		50

At the end of the accounting period the Gain on Disposal of Plant Assets account balance should be closed to Fund Balance Invested in Plant; the net effect of the plant fund entries, therefore, is that the unamortized cost of the asset disposed of is charged to the Fund Balance Invested in Plant account. The Gain on Disposal of Assets account balance is closed at the end of the accounting period to Operating Fund Balance, so there is no net effect at all on the operating fund accounts. The apparent reason for the cumbersome procedure recommended by the AHA is that the authors of the AHA manual felt the gain on sale of assets should appear in the income statement, which is to be prepared from revenue and expense accounts, all of which are considered to relate to the operating fund. Inasmuch as the entire proceeds of the sale of assets is retained by the plant fund to be used for plant improvement, replacement, or expansion, the AHA recommendations result in an income statement which shows the receipt of revenue which is not available for operations and is not related to the activities of the operating fund.

Budgets for hospitals[2]

Hospitals, though service institutions, must have an inflow of funds equal to their outflow of funds. Since this is the case, prudent management will attempt to forecast the outlays for a definite period and forecast the income for the same period. Equating anticipated income and outgo means that *future operations must be planned.* "Planning future operations" is a phrase which defines budgeting as it is thought of today in successful businesses. Budgeting is not merely planning financial affairs, but developing an integrated plan for all phases of the operations of the organization. If this is done properly, each department knows the objectives of the organization, and has determined to what extent and in what manner the department will contribute to them. The predetermination of the role each department is to play in achieving the hospital objectives

[2] For a more complete treatment of this subject see Leon E. Hay, *Budgeting and Cost Analysis for Hospital Management.* (2d ed.; Bloomington, Ind.: Pressler Publications, 1963), chaps. viii–xi, xiv.

enables management to measure the success each department has in attaining its objectives. Frequent measurement helps keep each department on the proper path. Thus, budgeting is of considerable usefulness to management.

Some hospitals use comprehensive budgets for managerial purposes but do not incorporate the budgetary provision in the accounts. Other hospitals do record their budgets in the ledger by including the necessary accounts after the general fund balance sheet accounts, even though some of them are not balance sheet items. This arrangement is discussed in the section of this chapter pertaining to the chart of accounts. If permitted by law or other pertinent regulations, budgetary accounts may be carried in a separate group, which, although considered a part of the ledger, avoids mingling them with the proprietary accounts which are more useful to hospital management.

It is possible to generalize that although every hospital should have an annual budget, it is important that the budget be administered intelligently. For a hospital, or for any other enterprise, good financial management requires that outlays be evaluated in terms of results achieved. Insistence upon rigid adherence to a budget not related to actual work load (as is the case in some governmental agencies) tends to make the budget useless as a management tool. Thus, unless budgetary accounts are required by law, they may well be dispensed with.

Financial statements of hospitals

Important individual statements of hospitals include balance sheets for each fund, statements of changes in fund balances, income and expense statements, and a great number of statistical statements. Statements of the last kind are important in hospital accounting because of their value in helping to analyze the financial results of the many kinds of services performed. Not all hospitals use the same statistical statements, nor do they attach equal significance to given statements; these are factors upon which experience and judgment have a strong bearing. Statements of the first three kinds named above—balance sheets, statements of changes in fund balances, and operating statements—will be illustrated with a single example for each group, although, in practice, deviations from the forms illustrated are commonplace.

The typical balance sheet of a hospital is a composite of fund balance sheets. Owing to certain interrelationships which exist among hospital funds and which have been discussed elsewhere, the statement is more closely integrated than the combined balance sheets of municipalities. Illustration 20–1 shows a balance sheet in the form presented in the AHA manual. It will be noted that intrafund classification of assets and liabilities into current, deferred, and fixed is absent. This segregation is provided substantially by the fund basis of grouping. Because of its incidental nature, the agency fund is omitted from Illustration 20–1.

Illustration 20–1

PORTLAND GENERAL HOSPITAL

Balance Sheet—Assets
December 31, 1969

Operating Fund			
Cash			$ 16,000
Temporary investments			17,000
Accounts and notes receivable		$ 44,000	
Less: Allowances for uncollectible notes and accounts		5,000	39,000
Accrued interest receivable			600
Due from plant fund			2,000
Supplies inventory			38,000
Total Operating Fund Assets			$112,600
Specific Purpose Fund			
Cash			$ 1,000
Investments			18,000
Accrued interest receivable			300
Total Specific Purpose Fund Assets			$ 19,300
Endowment Fund			
Cash			$ 3,000
Due from temporary funds			10,000
Investments (book value):			
Stock		$100,000	
Real estate		60,000	
Mortgages receivable		115,000	275,000
Total Endowment Fund Assets			$288,000
Plant Fund			
Cash		$ 7,000	
Investments		51,000	
Due from operating fund		12,000	70,000
Land		$ 30,000	
Buildings	$820,000		
Less: Accumulated depreciation	160,000	660,000	
Fixed equipment	$152,000		
Less: Accumulated depreciation	29,000	123,000	
Major movable equipment	$ 71,000		
Less: Accumulated depreciation	30,000	41,000	
Minor movable equipment (nondepreciable)		18,000	
Net land, buildings, and equipment			872,000
Total Plant Fund Assets			$942,000

Illustration 20–1 (*continued*)

PORTLAND GENERAL HOSPITAL

Balance Sheet—Liabilities and Capital
December 31, 1969

Operating Fund

Vouchers payable		$ 8,000
Salaries, wages, and fees payable		7,000
Withholding taxes payable		1,500
Due to plant fund		12,000
Total Liabilities		$ 28,500
Operating Fund Balance		84,100
Total Operating Fund Equities		$112,600

Specific Purpose Fund

Due to endowment fund		$ 10,000
Specific purpose fund balance		9,300
Total Specific Purpose Fund Equities		$ 19,300

Endowment Fund

Mortgages payable		$ 30,000
Endowment fund principal:		
Income unrestricted	$180,000	
Income restricted	78,000	258,000
Total Endowment Fund Equities		$288,000

Plant Fund

Vouchers payable	$ 4,000	
Due to operating fund	2,000	
Bonds payable	85,000	
Total Liabilities		$ 91,000
Plant fund balance:		
Invested in plant	$787,000	
Reserved for plant replacement and expansion	64,000	
Total plant fund balance		851,000
Total Plant Fund Equities		$942,000

Statements of changes in fund balances explain why a fund's balance at one date is different from its balance at another date. Statements of this kind may be prepared for all the hospital's funds; but only one schedule, for the operating fund, is shown here (Illustration 20–2).

Illustration 20–2

PORTLAND GENERAL HOSPITAL

Statement of Changes in Operating Fund Balance
for the Year 1969

Balance, December 31, 1968	$71,320
Add: Net income for year	15,180
	$86,500
Deduct: Transfer to endowment fund	2,400
Balance, December 31, 1969	$84,100

Illustration 20–3

PORTLAND GENERAL HOSPITAL

Income Statement for the Year 1969

Patient service revenues:		
Nursing service revenues	$773,750	
Other professional service revenues	653,000	
Gross patient service revenues		$1,426,750
Deductions from patient service revenues:		
Charity service	$ 38,250	
Contractual adjustments	35,000	
Provision for bad debts	17,000	
Total deductions from patient service revenues		90,250
Net patient service revenues		$1,336,500
Other revenues:		
Contributions and grants	$ 7,600	
Income from operating fund investments	478	
Income transferred from specific purpose funds	1,022	
Total other revenues		9,100
Total revenues		$1,345,600
Expenses:		
Nursing service expenses	$570,000	
Other professional service expenses	335,000	
General service expenses	271,000	
Fiscal service expenses	48,420	
Administrative service expenses	106,000	
Total expenses		1,330,420
Net Income for the Year		$ 15,180

On account of the extensive classification of the operating accounts of hospitals, their statements of income and expense may be prepared in a variety of forms, the one chosen depending upon the preference of the hospital management. Illustration 20–3 shows one form; variations are:

1. They may be comparative. This is not essentially a different form, but merely shows similar information for the preceding period. This form is recommended where space permits its use because comparisons add meaning.
2. The statement may be condensed, with schedules supporting items composed of numerous details.
3. Operating income may be classified in other ways—for example, by type of patient—or may be condensed, with supporting schedules.
4. Operating expenses may be grouped by broad classes—for example, general and administrative, dietary, building and household, general professional services, and special professional services.

In addition to the standard financial and operating reports, it is imperative that hospitals prepare numerous statistical analyses. This requirement derives from the variety of services rendered by hospitals and the range of economic status represented by the patients served. Many of the statistical analyses are related to unit costs; these predominate because hospital management, to be efficient, must know the relationship between revenue and costs of the various services furnished to patients. A discussion of cost accounting for hospitals is found in Chapter 21.

Although not an ingredient of the accounting system of hospitals, a standard glossary of terms and definitions is an absolute necessity. Clarity and uniformity of meaning are indispensable to the production of comparable financial and statistical data. "Contractual inpatient," "general inpatient," "full-pay visit," and the many other terms used in describing and measuring hospital activities must be defined with exactitude to obtain reliable reports. Hospital organizations have given much attention to the development of standard terms.

Conclusion

A single chapter on accounting for hospitals can touch upon only the most outstanding features. The probability of great variations in the operating and accounting procedures for individual hospitals must be kept in mind. Particularly influential in determining appropriate accounting procedures are the size of the unit and the sources of income. For further information the references cited below are recommended.

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QUESTIONS

1. A nongovernmental hospital wishes to convert from the cash basis of accounting to an accrual system that will be practical to operate.

a) Name some sources of information available to the hospital accountant to help him develop the new system.
b) Outline the essential changes the hospital will have to make.

(Adapted from a Fellowship Examination of the Hospital Financial Management Association)

2. In hospital accounting the procedure followed in recording and assembling all charges to patients accounts is especially important. Why?
3. Hospital accounting manuals provide that service rendered to nonpaying or part-paying categories of recipients shall be billed at the regular price for a full-pay patient. What is the reason for this recommendation?
4. The AHA chart of accounts is discussed in this chapter. For what reason are numbers provided for each account title? What is the logic of the recommended numbering system?
5. Some hospital fixed assets, referred to as "minor equipment," are not depreciated. Additions and replacements are debited to the Minor Equipment account. At ends of fiscal periods the aggregate of such equipment is inventoried, and the equipment account balance is reduced to the inventory value.
   a) Why is that method more suitable for the class of assets referred to than the conventional method?
   b) Assuming that the Minor Equipment account has a balance of $21,000 at the end of the year, compared with an inventory valued at $15,700, make the necessary adjusting entry.
6. Underwriting of medical and hospital costs of an individual or family has become a widespread practice through the use of both private and governmental medical and hospital insurance and prepayment plans. Has the growth of third-party payment of hospital bills had any effect upon hospital accounting? Explain.
7. You have received an invoice from the Central Surgical Supply Company in the amount of $900, covering $500 of items chargeable to the operating fund laboratory supplies and $400 of items chargeable to the heart research fund (which is carried as one of the specific purpose funds on your books). This $400 includes $300 for major movable equipment and $100 for supplies. Payment to the vendor is to be made on one check only. Reimbursement to the operating fund is made in the subsequent month. Expendable supplies for the heart research fund are included in the hospital's operating expenses. Show the entries necessary to reflect these transactions on the books.

   (Adapted from a Fellowship Examination of the Hospital Financial Management Association)
8. How do the accounting procedures found in the American Hospital Association manual differ from the principles of fund accounting as set forth by the National Committee on Governmental Accounting?

PROBLEMS

1. Having been appointed controller of Paragon Hospital, you find it necessary to make adjustments in the accounts for the year ended December 31, 1969.

ACCOUNTS RECEIVABLE ALLOWANCES

As of 9/30/69 (End of Fiscal Year)

	Bad Debts	*Charity Allowance*	*Total*
Beginning of month	$115,600	$28,600	$144,200
Provision for month	14,000	4,665	18,665
Charges for month	9,300	600	9,900
End of Month Balance	$120,300	$32,665	$152,965

Required:

Accounts receivable balances and allowances are summarized above. The Finance Committee is questioning the amounts of receivables carried, as well as allowances, charity, and bad debt write-off policies. The balance as of September 30, 1969, represents about 50 days' business. Average monthly gross income is fairly stable. As the new controller, you are asked to give your opinion on these figures, and present a course of action to investigate and correct or improve the Accounts Receivable picture.

(FHFMA, adapted)

3. The Pediatric Hospital presents the following operating fund balance sheet as of September 30:

Assets			*Liabilities and Capital*	
Cash		$ 8,161	Accounts payable	$ 40,494
Inpatient receivables	$136,621		Salaries, wages, and fees payable	14,920
Less: Allowance for uncollectibles	15,222	121,399	Total Liabilities	$ 55,414
Accrued interest receivable		5,000	Operating fund balance	142,291
Inventory—supplies		63,145		
Total Assets		$197,705	Total Liabilities and Capital	$197,705

Required:

a) Record in general journal form the effect of the following transactions during October on the operating fund:

(1) Summary of revenue journal:

Nursing service revenues	$ 87,130 (gross)
Other professional service revenues	57,618 (gross)
Adjustments and allowances:	
Contracting agencies	2,180
Charity service	2,515

(2) Summary of cash receipts journal:

Grant from United Fund	8,000
Collections of receivables	122,278
Interest accrued September 30	5,000

(3) Purchases journal:

Administration	6,394
General service expenses	8,380
Nursing service expenses	16,240
Other professional services expenses	15,612

(4) Payroll journal:

Administration	$ 15,061
General service expenses	7,200
Nursing service expenses	34,030
Other professional service expenses	31,225

(5) Summary of cash payments journal:

Accounts payable for purchases	33,955
Accrued payroll	82,241
Transfer to plant fund—depreciation	11,000

(6) Other information:

October provision for uncollectible receivables	1,450
Accrued interest receivable, October 31	1,300

	September 30	*October 31*
Supplies inventory:		
Administration	$ 7,970	$ 7,340
General service expenses	8,734	8,968
Nursing service expenses	9,965	10,223
Other professional service expenses	36,476	35,990
Total	$63,145	$ 62,521

(7) Nominal accounts were closed.

b) Prepare an operating fund balance sheet as of October 31.
c) Prepare an income statement for October.

4. The following transactions occurred in the specific purpose funds of the Jefferson Memorial Hospital:

(1) Under the will of Samuel H. Smith, a bequest of $20,000 was received for the promotion of nursing education.
(2) Pending the need of the money for the designated purpose, part of it was invested in $9,000 of par value City of Greenville 3 percent bonds, at 103 and accrued interest of $110.
(3) An interest payment of $135 was received on the City of Greenville bonds.
(4) The bonds were sold at 104 and accrued interest of $60.
(5) The sum of $8,500 was transferred to the operating fund.
(6) The income transfer from the Smith fund was used by the operating fund for the purpose designated.

Make journal entries for the above transactions.

5. The balance sheet of Huge Hospital as of June 30, 1969 indicated the following with respect to endowment funds:

Endowment Funds:	
Cash	$ 3,000
Cash—pool	9,000
Securities	120,000
Securities—pool	551,000
Real estate	170,000
Funds held by trustee	87,000
Total Endowment Funds	$940,000

Endowment Funds:		
Vouchers payable	$ 8,000	
Due to plant funds	4,000	
Reserve for realized gains and losses on pooled investments	15,000	
Reserve for replacement of real estate	71,000	$ 98,000
Endowment funds balances:		
Unrestricted	$650,000	
Restricted	130,000	780,000
Principal of funds temporarily serving as endowments		62,000
Total Endowment Funds		$940,000

You are required to prepare journal entries to record the following transactions which relate to the fiscal year 1969–70; you are also required to prepare an endowment fund balance sheet as of June 30, 1970.

(1) Funds held by the trustee in the amount of $17,000 were transferred by the trustee to the Endowment Fund Cash account.
(2) Vouchers payable on June 30, 1969 were paid.
(3) Income amounting to $15,000 was received from pooled investments; and income amounting to $3,000 was received from securities of unpooled, unrestricted endowment funds. Premium on pool securities to be amortized in 1969–70 was determined to be $2,100.
(4) Securities of unrestricted endowment funds carried at $25,000 were revalued to market, $26,812, and transferred to the pool.
(5) Pool securities carried at $53,000 were sold for $52,000 and the proceeds reinvested in other securities for the account of the pool.
(6) Gross cash income of real estate was $20,000. Expenses attributable to the real estate in the amount of $14,900 were vouchered during the year. Vouchers payable at year-end amounted to $3,800.
(7) The Reserve for Replacement of Real Estate was increased by $3,300.
(8) The amount due plant funds on June 30, 1969 was transferred from pool cash during the year. Net income of the pool for 1969–70 was to be transferred to plant funds in 1970–71. Net income from the real estate was to be transferred to the operating funds in 1970–71, as was income from unrestricted, unpooled investments.

6. The trustees of Mercy Hospital have decided to pool the investments of three of its endowment funds which, for present purposes, will be designated as A, B, and C. Accounting for investments of the three endowments had been conducted on the basis of cost. At the date of pooling, the composition of the three was as follows:

Assets	*A*	*B*	*C*
Cash	$ 1,000	$ 800	$ 120
Investments	58,000	29,360	88,000
Accrued interest	500	700	860
Total Assets	$59,500	$30,860	$88,980

Liabilities and Fund Principal			
Due to operating fund	$ 600	...	...
Fund principal—income unrestricted	58,900	...	...
Fund principal—income restricted	...	$30,860	$88,980
Total Liabilities and Fund Principal	$59,500	$30,860	$88,980

Preliminary to the pooling of the assets, it was decided to adjust investments to market value, and the following changes were agreed upon:

Endowment	*Book Value*	*Market*
A	$58,000	$59,100
B	29,360	28,500
C	88,000	89,020

a) You are required to journalize the transactions stated below:

(1) Entries were made to adjust the book value of investments to market value, as indicated above.
(2) Except for $600, all cash was transferred to Cash—Pool.
(3) Investments and accrued interest were transferred to Investments—Pool and Accrued Interest—Pool.
(4) The amount due the operating fund was paid from unpooled cash.
(5) Interest received in cash on pool investments during the year totaled $3,850, including amounts accrued at the time of pooling.
(6) Interest accrued on pool investments at the end of the year amounted to $2,240.
(7) At the end of the year, it was decided to compute and record the liability to the beneficiaries of the three funds: operating fund for A, and plant fund for B and C, for earnings of the pool.

b) During the next year the following additional transactions occurred:

(1) Amounts due the beneficiary funds were paid.
(2) During the year, the D fund was given to the hospital and made a member of the pool, supplying cash of $900 and investments with a fair market value of $59,100. D's income is unrestricted. Assume that the market value of the assets derived from funds A, B, and C is the same as when the pool was created.
(3) During the year, interest received in cash amounted to $5,640, including the amount accrued at the end of last year.
(4) Pool investments carried at $20,600 were sold during the year at $23,400.
(5) Interest accrued on investments at the end of the year totaled $2,900.
(6) At the end of the year, it was decided to compute and record the liability to the beneficiaries of the individual endowments for earnings of the pool. Fund D was admitted to the distribution on the basis of one-half year in the pool.

c) At the end of three years, the Reserve for Realized Gains and Losses had reached the credit balance of $12,000, and it was decided to distribute the entire amount to the balances of the participating endowments, on the basis of their principal amounts at the beginning of the third year. Make the entry for that transaction.

7. Below is given the plant fund balance sheet of the Jefferson Memorial Hospital as of September 30, 19—.

JEFFERSON MEMORIAL HOSPITAL

Plant Fund Balance Sheet
as of September 30, 19—

Assets

Cash		$ 16,557
Investments		200,000
Due from operating fund		577,389
Land		108,000
Buildings, at cost	$1,516,367	
Less: Accumulated depreciation	506,452	1,009,915
Fixed equipment, at cost	$ 330,217	
Less: Accumulated depreciation	173,607	156,610
Major movable equipment, at cost	$ 207,301	
Less: Accumulated depreciation	113,887	93,414
Minor equipment		24,114
Total Assets		$2,185,999

Equities

Fund Balance:	
Invested in plant	$1,392,053
Reserved for replacement and expansion	793,946
Total Equities	$2,185,999

a) Prepare, in general journal form, entries to record the effect on the plant fund of the following transactions:

(1) On October 1, fixed equipment which cost $6,560, and for which accumulated depreciation totals $4,890, was traded for similar new equipment costing $9,840; the payment in cash amounted to $8,800. The payment was made from plant fund cash.
(2) Depreciation charges for October amounted to $2,500 for the building, $2,750 for fixed equipment, and $3,800 for major movable equipment.
(3) Cash in the amount of $20,000 was received from the operating fund to "fund" the October depreciation charges, the balance to be applied to the arrearage in funding depreciation charges of prior periods.
(4) Cash in the amount of $50,000 was received from an anonymous donor to be used for the eventual erection of an addition to the nurses' dormitory.
(5) Necessary closing entries were made.

b) Prepare a plant fund balance sheet as of October 31, 19—.

8. From the following trial balance and other information, prepare appropriate fund balance sheets and income statement for the year ending December 31, 1969. All operating expenses should be charged to the Operating Expenses account.

COUNTY HOSPITAL

Trial Balance
December 31, 1969

	Debit	Credit
Land	$ 100,000	
Buildings	500,000	
Furniture and equipment	150,000	
Cash—Operating Fund	50,000	
Accounts receivable—inpatients	49,500	
Accounts receivable—outpatients	500	
Inventory	35,000	
Investments	15,000	
Prepaid insurance	2,250	
Operating expenses	487,750	
Accounts payable		$ 9,000
Accumulated depreciation—buildings		60,000
Accumulated depreciation—furniture and equipment		22,500
Allowance for uncollectible accounts		8,500
Donated surplus		600,000
Earned surplus		100,000
Revenues from patient services		550,000
Other revenues		40,000
Totals	$1,390,000	$1,390,000

Other information:

a) Expense of estimated uncollectible accounts for the year has not been charged on the records—rate, 1½ percent of revenue from patient services.

b) Depreciation on buildings has not been charged—rate, 2½ percent per year.

c) Depreciation on furniture and equipment has not been charged—rate is 10½ percent per year. The hospital purchased new equipment on July 1, 1969, which was entered on the records at a cost of $15,000. It has been the policy to apply the annual depreciation rate on property and plant balances as of January 1 of each year, and to charge no depreciation on acquisitions during the year.

d) Unexpired insurance premiums as of December 31, 1969, amounted to $2,000.

e) A Cash Change Fund of $300 was established July 5, 1969. It had been charged on the records as an operating expense.

f) The hospital board, on December 31, 1969, ordered accounts of inpatients totaling $4,225 written off as uncollectible. You will make this adjustment.

g) Interest of $450 on investments which were purchased from the Cash—Operating Fund was received December 31, 1969, and has not been entered on records.

(Indiana State Board of Accounts, adapted)

9. Below is given a combined trial balance for the funds of the Sewell City General Hospital after closing on December 31, 1968.

	Debit	Credit
Operating fund:		
Cash	$ 9,400	
Accounts receivable	28,000	
Allowance for uncollectible accounts		$ 6,000
Inventory of supplies	8,000	
Prepaid expenses	1,200	
Due from plant fund	2,000	
Accounts payable		11,000
Accrued expenses payable		1,600
Operating fund balance		30,000
Endowment fund:		
Cash	8,000	
Investments	146,000	
Endowment fund principal—income unrestricted		154,000
Plant fund:		
Cash	3,000	
Investments	22,000	
Land	8,000	
Buildings	105,000	
Accumulated depreciation on buildings		21,000
Fixed equipment	68,000	
Accumulated depreciation of fixed equipment		17,000
Major movable equipment	41,000	
Accumulated depreciation of major movable equipment		13,000
Minor equipment	33,000	
Mortgage bonds payable		64,000
Due to operating fund		2,000
Fund balance invested in plant		140,000
Fund balance reserved for plant improvement and expansion		23,000
	$482,600	$482,600

During 1969 the following transactions, in summary form, occurred:

(1) Gross earnings from services to patients, all charged to accounts receivable, were as follows:

Earnings from nursing services	$320,300
Earnings from other professional services	94,500

(2) Deductions from gross earnings were as follows:

Charity Service	$ 9,000
Contractual adjustments	10,000
Provision for uncollectible receivables	9,000

(3) Other revenue received or earned during the year included the following:

Income from endowment fund investments	$ 4,880
General contributions	32,600

(4) Plant fund cash of $1,000 was invested in new fixed equipment.
(5) One piece of major movable equipment, which cost $800 and currently had a book value of $200, was sold for $50.
(6) Transactions vouchered during the year were as shown below:

Expenses accrued at end of last year	$ 1,600
Administrative service expenses	32,200

Fiscal service expense	$ 24,000
General service expense	82,500
Nursing service expense	201,300
Other professional service expense	44,720
Supplies	3,000

(7) Operating fund cash in the amount of $4,000 was used to retire mortgage bonds payable, with an equivalent face value; the operating fund will not be repaid.
(8) The hospital received corporate stock with a current market value of $24,000, the income to be used for nursing education (credit Endowment Fund Principal—Income Restricted.)
(9) Collections on accounts receivable during the year amounted to $394,200, and $3,100 of accounts receivable were written off.
(10) Supplies issued during the year amounted to $4,000, which may be charged to Administrative Service expense.
(11) The plant fund and the endowment fund paid the amounts due to the operating fund.
(12) Cash payments on vouchers payable during the year amounted to $381,200; purchase discounts in the amount of $210 were taken.
(13) Accrued expenses at December 31, 1969 included fiscal service expense of $120 on plant fund bonds; administrative service expense, $870; and other professional service expense, $480. Prepaid expenses, consisting of other professional service expense, declined $400 during the year.
(14) Accrued income on endowment fund investments was $540; and on plant fund investments, $180.
(15) Depreciation of fixed assets was as follows:

Buildings	$3,150
Fixed equipment	4,000
Major movable equipment	2,000

(16) The endowment fund transferred in cash to the operating fund the amount due.

You are required to do the following things:

a) Record the 1969 transactions.
b) Prepare a balance sheet for December 31, 1969.
c) Prepare a statement of income and expenses for 1969.
d) Prepare a statement of changes in the operating fund balance for 1969.

10. The Smith Medical Foundation was established in 1961 to finance research in the field of medical science. It leased building facilities from others from the date of its establishment to December, 1968, at which time land and buildings adaptable to its operation were purchased.

Since it was desired to operate its plant property as a self-supporting entity, the foundation decided to account for its plant as a separate fund, by establishment of an operating fund and a plant fund. All cash is to be handled by the operating fund, with the plant fund being charged or credited with amounts applicable to it, until after the close of each year. At this time, settlement will be made, if possible. The plant property is to be depreciated effective January 1, 1969, at the rate of 5 percent per year. A depreciation "fund" is to be established.

The assets, debts, and capital accounts as of December 31 show the following:

SMITH MEDICAL FOUNDATION

	December 31	
Assets	*1969*	*1968*
Cash	$ 42,000	$ 36,000
Investments	217,000	67,000
Plant account	96,000	75,000
Unexpired insurance premiums	1,000	
Plant operations		1,000
Total Assets	$356,000	$179,000
Liabilities		
Accounts payable	$ 6,000	$ 4,000
Rents	3,000	
Balance	347,000	175,000
Total Liabilities	$356,000	$179,000

Upon analysis of the Plant account, you find the following:

Date	*Item*	*Debit*	*Credit*
9-30-68	Cash donation for purchase of plant		$100,000
12-15-68	Purchase of property	$175,000	
1-31-69	Building improvements	24,000	
3-31-69	Building improvements	15,000	
12-31-69	Plant operation		18,000

Entries in the Plant Operation account consisted of:

Date	*Item*	*Debit*	*Credit*
12-31-68	Coal, cleaning supplies, etc.	$ 1,000	
2-28-69	Coal, cleaning supplies, etc.	4,000	
6-30-69	Grading and seeding of grounds	6,000	
7-31-69	Cleaning supplies, etc.	1,200	
12-31-69	Coal, cleaning supplies, etc.	4,000	
12-31-69	Expired insurance premiums	1,800	
12-31-69	Plant account	18,000	
12-31-69	To close the account		$36,000

Rents consisted of $3,000 per month received in 1969 and rent for January 1970, which was received on December 31, 1969.

You obtain an appraisal of the land owned by the foundation, which gives a value of $75,000 at date of purchase.

a) You are to prepare journal entries setting up the plant fund and recording the transactions in the fund to December 31, 1969.

b) You are to prepare a sectional balance sheet presenting the funds as of December 31, 1969.

(AICPA, adapted)

11. The town of Mapleton built a hospital which was occupied March 1, 1968. Monthly reports have been rendered for the first few months on a cash

basis and have not shown separation of amounts by funds. You have been employed by the hospital as business manager, in December of the same year, and are to set up an accounting system on an accrual basis and to follow usual fund accounting practices. From the information presented below, prepare a statement showing the income and expense for the 10 months and a statement of financial position by funds.

(1) The total contract price of the building was $1,200,000. This included fixed equipment of $350,000. The contractor was paid in the following manner:

(a) Cash of $600,000 which was contributed by the federal government toward the hospital cost.
(b) Cash of $100,000 contributed by the county government toward the cost.
(c) Hospital bonds issued by the town in the amount of $500,000. These bonds are 5 percent bonds dated January 1, 1968, due in 10 years, interest payable semi-annually. They are general obligation bonds of the town, but the town wishes to treat them in the hospital fund.

(2) Equipment was initially obtained as follows (all was major equipment except minor equipment of $18,300):

(a) Purchased by the town for cash, $76,500.
(b) Purchased out of cash donations made by citizens for that purpose, $29,000.
(c) Donated equipment with an estimated value of $12,000.

(3) The statement of cash receipts and disbursements, exclusive of items described above, for the 10 months was as follows:

Nursing service revenues	$226,570
Other professional service revenues	189,780
Miscellaneous income	1,030
Received from estate of James Jones, M.D.	25,000
Miscellaneous donations	20,410
Received from Beulah Williams	32,000
Donations from churches	3,700
Received from county for charity patients	1,840
Income from bonds	1,700
Total cash received	$502,030
Payroll and taxes paid thereon	$273,400
Supplies purchased	140,624
Major equipment purchased	47,250
Interest on bonds	12,500
Miscellaneous expenses	4,100
Total cash disbursed	$477,874
Balance of Cash, December 31, 1968	$ 24,156

Investigation revealed the following additional information:

(1) Inpatients' accounts on the books as of December 31, 1968, amounted to $47,400. This amount is found to be divided between nursing and other professional services in the same proportion as cash already received. It is estimated that $4,360 of these accounts will never be collected.
(2) Accrued unpaid wages at year-end amounted to $5,200, unpaid supply invoices amounted to $12,810, and accrued utilities amounted to $364. Prepaid insurance amounted to $720. Supplies on hand amounted to $13,800, at cost.
(3) It has been decided to charge current income with depreciation on general hospital property at the following rates, based on the year-end balance of the asset accounts: building, 2 percent; fixed equipment, 5 percent; major equipment, 10 percent. Depreciation is to be computed for a full year. The reserve is to be funded.
(4) The plant fund may borrow from the endowment fund.

(5) The following facts were determined in respect to the donations:

(a) The donation from the estate of James Jones, M.D., received July 1, 1968, was for the purchase of equipment.
(b) The miscellaneous donations were made for general purposes of the operation of the hospital.
(c) The Beulah Williams donation, received June 1, 1968, consisted of cash and $40,000 face value of X Corporation 4¼ percent bonds, both to be treated in the endowment fund. Interest dates are June 1 and December 1. Income of this fund may be used for general operations of the hospital.
(d) The donations from churches are to be used for the purchase of equipment.

(FHFMA, adapted)

Chapter 21

Cost Accounting for Nonprofit-Seeking Entities

Cost accounting, as discussed in standard college texts, is generally applicable to business operations of governmental units. It is less immediately obvious that cost accounting concepts are applicable to governmental activities of a nonbusiness nature, or to hospitals or universities or other nonprofit-seeking entities. Yet, almost without exception in the case of hospitals and universities, and in many instances in the case of governmental units, the explosive increase in demand for services, relative to the increase in resources, has forced the adoption of the techniques of good financial management, including cost accounting.

The use of cost as a measure of the input of resources into a program is discussed in Chapter 2 of this text, as are other uses of cost data in budgeting for improved financial management. The purpose of the present chapter is to review briefly the customary means by which historical costs are determined in nonprofit-seeking entities. A more complete treatment of any of the techniques discussed here, and of many other techniques, may be found in any cost accounting or management accounting text.

Cost accounting, in the sense of the routine collection of data concerning the costs of departments, programs, or products, through the mechanism of a double entry bookkeeping system, is not as frequently found in nonprofit-seeking entities as is cost *analysis*, or the recasting of data derived from the fund accounts described in preceding chapters to obtain desired cost information. Cost analysis procedures may be considered to be statistical, since they are done apart from the bookkeeping system and may be done at regular intervals or only on a special study basis.

Cost analysis—a hospital example

Three terms are particularly important in the present discussion: direct cost, indirect cost, and full cost. A *direct cost* of a certain department is a cost which is incurred because of some definite action by or for the department (or program or project). Thus, in a hospital, the salary of the pharmacist is a direct cost of the pharmacy department. A hospital phar-

macy exists to serve the patients of the hospital, however, so from the viewpoint of an inpatient nursing station the pharmacist's salary is an *indirect* cost. Likewise, the direct costs of all departments which exist to facilitate the work of the nursing station are indirect costs from the viewpoint of the nursing station.

In order to determine the total cost, or *full cost*, of serving the patient, it is necessary to add the indirect costs to the direct costs. Although the process of cost allocation is illustrated here in relation to a hospital, it underlies all cost accounting and cost analysis systems, and some adaptation of one of the three methods discussed below is used in every business and every nonprofit entity which attempts to determine costs (even if a "direct costing" system is used). A brief description of the three basic methods of distributing the costs of service departments is:[1]

METHOD 1. *Government Reimbursable Cost Method.* Costs of nonrevenue-producing departments are allocated to revenue-producing departments only.

METHOD 2. *Step-Down Method.* Costs of nonrevenue-producing departments are allocated in sequence to departments they serve, whether or not these produce revenue. Once the costs of a department have been allocated, the costing process for that department is closed, and it receives no further charges.

METHOD 3. *Double Distribution or "Vicious Circle" Method.* Costs of nonrevenue-producing departments are allocated to *all* departments they serve. Amounts allocated to nonrevenue-producing departments in the first step are cleared to revenue-producing departments by a second series of allocations.

Although hospital administrators need to know the costs of services rendered in order to evaluate the rate structure, in order to measure the effectiveness of departmental supervisors, and in order to have a realistic basis for budgets, the primary reason why many hospitals have been concerned with cost analysis is that a very large proportion of charges for services rendered to patients are paid by Blue Cross, insurance companies, and governmental welfare agencies. Such contract purchasers generally require hospitals to report cost information periodically in a specified form. Methods 1 and 3 are used in many jurisdictions because of the requirements of contract purchasers. Method 1, however is not acceptable under Medicare regulations.

The American Hospital Association recommends the use of the step-down method, Method 2, as does the United Hospital Fund of New York. Because departmental costs are allocated in sequence under this method, it is important that the departments be ranked so that the cost of the one which renders service to the greatest number of other departments, while

[1] For a more complete treatment of this subject see Leon E. Hay, *Budgeting and Cost Analysis for Hospital Management*. (2d ed.; Bloomington, Ind.: Pressler Publications, 1963,) chaps. i–vii, xii.

receiving benefits from the least number of departments, be allocated first; and the cost of the one rendering service to the least number of other departments, while receiving benefits from the greatest number, be allocated last. Practical application of this theory often requires arbitrary decisions as to the sequence in which departmental costs are closed. A further problem in cost allocation is the choice of bases. The American Hospital Association publication *Cost Finding and Rate Setting for Hospitals* lists possible allocation bases.[2] It suffices to say here that the base selected for the allocation of the expense of each department should meet two criteria:

1. It should result in a distribution which is fair to all departments concerned.
2. The application of the base should be clerically feasible.

An example of the application of the step-down method of allocating costs of nonrevenue-producing departments of the Glenn Hospital is presented in Illustration 21–1. A glance at the worksheet shows that the method is aptly named, since the sequential closing of accounts gives the money columns the appearance of a series of steps. The worksheet technique here illustrated provides for the vertical distribution of general service department direct and allocated expenses. For example, the total direct expenses of the first department listed, Maintenance of Plant, are entered as negative figures (indicated by the parentheses enclosing the figures) on the first line in the second money column from the left. The amount of maintenance of plant expense allocated to each department served is entered on the appropriate line under the negative amount, i.e., $34,000 of the $72,000 maintenance of plant expense was allocated to the Operation of Plant department. Inasmuch as the additions to other departments total the amount distributed, the column total is zero. Likewise, the Operation of Plant expense is allocated to departments served. In this case the expense to be allocated is $150,000, the total of the direct expenses, $116,000, and the allocation of Maintenance of Plant expense, $34,000. Illustration 21–1 also shows that this method of cost analysis does not produce total cost figures for the nonrevenue-producing or "general service" departments. Many accountants feel that direct departmental costs are more useful for managerial purposes than total costs (which include indirect costs charged to the department on the basis of many assumptions). Total cost figures are necessary, however, for negotiations with contract purchasers of hospital services. Hospitals must be reimbursed for the expenses of departments which serve other hospital departments as well as for the expenses of the departments which serve patients directly.

Reimbursement of hospitals by contract purchasers is frequently related to cost per patient day for inpatients and newborns. Illustration 21–2

[2] American Hospital Association, *Cost Finding and Rate Setting for Hospitals* (Chicago, 1968).

Illustration 21–1

GLENN HOSPITAL

Cost Analysis Worksheet
Year Ended June 30, 19--
(Method No. 2—Step-Down Method)

Items	*Total Direct Expenses*	*Mainte-nance of Plant*	*Operation of Plant*	*Laundry and Linen*	*House-keeping*	*Loss on Pay Cafeteria*	*Administra-tion*	*Pharmacy*	*Medical Supply*	*Medical Records*	*Social Service*	*Dietary*	*Total after Distri-bution*
General services:													
Maintenance of plant	$ 72,000	$(72,000)											
Operation of plant	116,000	34,000	$(150,000)										
Laundry and linen service	64,000	3,000	5,835	$(72,835)									
Housekeeping	122,000	800	510	197	$(123,507)								
Loss on pay cafeteria	12,000	200	4,020	386	2,013	$(18,619)							
Administration	260,000	2,000	8,055	95	12,116	2,846	$(285,112)						
Pharmacy	96,000	1,800	1,215	29	667	114	1,853	$(101,678)					
Medical supply	168,000	800	1,410	131	667	570	9,266	...	$(180,844)				
Medical records	40,000	200	1,605	...	4,039	685	11,119	...	...	$(57,618)			
Social service	15,000	...	405	51	667	114	1,853	...	...	...	$(18,090)		
Dietary	214,000	2,500	6,045	830	4,039	...	28,682	...	...	...	...	$(256,096)	
Special services:													
Operating rooms	158,000	9,000	8,055	12,157	1,025	1,424	23,151	4,433	23,021				$ 240,266
Delivery rooms	45,000	5,000	4,425	6,082	3,359	570	9,266	1,697	16,439	...	...	...	91,838
Anesthesia	20,000	100	105	546	...	114	1,853	4,951	...	...	...	...	27,669
Radiology	122,000	3,000	4,830	910	4,039	797	12,944	1,170	...	...	...	...	149,690
Laboratory	160,000	2,000	5,640	910	3,705	1,593	25,888	793	...	...	...	...	200,529
BMR—EKG	15,000	100	810	58	2,013	114	1,853	122	...	...	...	...	20,070
Physical therapy	50,000	500	2,400	1,821	4,039	341	5,560	122	...	...	...	...	64,783
Routine services:													
Inpatients	520,000	5,000	72,480	39,513	70,671	7,970	129,614	83,427	124,945	46,118	11,306	256,096	1,367,140
Nursery	80,000	500	8,055	5,470	2,371	797	12,914	2,360	6,583	2,882	...	...	121,962
Outpatients	60,000	1,500	14,100	3,619	8,077	570	9,266	2,603	9,856	8,648	6,784	...	125,053
Total	$2,409,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$2,409,000

shows the allocation of the costs of special professional service departments of the Glenn Hospital to the Inpatient, Nursery, and Outpatient departments, and the calculation of per diem costs for the Inpatient and Nursery departments, and per visit cost for the Outpatient Department.

Illustration 21–2

GLENN HOSPITAL

Cost Analysis Worksheet
Year Ended June 30, 19–
(Method 2—Step-Down Method)

Items	*Total after Distribution*	*Inpatients*	*Nursery*	*Outpatients*
Special services:				
Operating rooms	$ 240,266	$ 216,624	$ 384	$ 23,258
Delivery rooms	91,838	91,838	...	...
Anesthesia	27,669	23,980	369	3,320
Radiology	149,690	97,972	1,093	50,625
Laboratory	200,529	180,075	3,108	17,346
BMR—EKG	20,070	15,680	63	4,327
Physical therapy	64,783	21,594	...	43,189
Total special services	$ 794,845	$ 647,763	$ 5,017	$142,065
Routine Services:				
Inpatients	1,367,140	1,367,140	...	...
Nursery	121,962	...	121,962	...
Outpatients	125,053	...	...	125,053
Total Cost	$2,409,000	$2,014,903	$126,979	$267,118
Number of patient days or visits		100,000	14,000	40,000
Per diem or per visit cost—special services		$ 6.48	$ .36	$3.55
Per diem or per visit cost—routine services		13.67	8.71	3.13
Per Diem or per Visit Cost—Total		$20.15	$9.07	$6.68

Bases for such an allocation must be chosen in accord with the same criteria as govern the choice of bases for the allocation of nonrevenue-producing departments.

For managerial purposes—and in some cases, for reimbursement purposes—it is desirable to compute unit costs of services rendered by special service departments. In the Glenn Hospital, to continue the same example, records indicate that 2,750,000 radiologic service units were rendered during the year (the Radiologic Section of the Connecticut State Medical Society, in cooperation with the Connecticut Hospital Cost Commission, has issued a table of such units, reflecting the relative complexity and time consumption of various services). The total of direct and allocated costs of the Radiology department of Glenn Hospital was $149,690 (see Illustration 21–1); therefore, the cost per radiologic service unit is $149,690 ÷ 2,750,000, or 5.44 cents.

Job order cost accounting

In order to record the costs of programs or projects in a systematic manner, job order cost accounting may be used. In brief, the essential characteristic of a job order system is the routine identification of each element of the direct cost of a given project. If the system is operated manually or with a bookkeeping machine, a cost sheet (see Illustration 21–3) will be kept for each "job," or project. (Even if the system is computerized a similar concept is used.) Illustration 21–3 shows that the cost of materials requisitioned for the project and the cost of labor performed for the project are itemized on the cost sheet. The cost of any supplies purchased specifically for this project, or any other "overhead" item incurred for this project, would also be entered on the cost sheet; general overhead would be allocated to the job on the basis of a predetermined rate.

Journal entries illustrating the use of job order cost accounting by an intragovernmental service fund are presented in Chapter 9.

Process cost accounting

The construction activities, and many maintenance activities, of a nonprofit-seeking entity are best accounted for by a job order system. Some activities, such as the manufacture of crushed stone, asphalt, or concrete, are operated as continuous processes and are best accounted for by a process cost system. In contrast with a job order system which focuses on the accumulation of costs on a project basis, a process system focuses on the accumulation of costs on a time period basis. For example, the wages of workers assigned to the asphalt plant would be charged to an account for that activity; raw materials used in that activity and overhead allocable to that activity would be charged to the same account. The total costs incurred for the asphalt plant during a time period may be divided by the production of asphalt during that period to determine the average cost of the product for that period.

Cost standards

Standard cost accounting systems are rarely found in governmental units or other nonprofit-seeking entities, but the use of cost standards apart from the books of account is rather common. Cost standards can be predetermined scientifically, as described in cost accounting texts, or the *Accountants' Cost Handbook*,[3] for operations or activities which are performed repetitively. Cost estimates may be prepared for operations or activities which are performed less frequently. The standards, or estimates, are useful for planning purposes, and furnish a basis for control.

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[3] Robert I. Dickey, ed. (New York: Ronald Press Co., 1960), Section 15.

Illustration 21-3

CITY OF X

JOB COST SHEET

Job.No. 69-33

Description of Job Erect partitions in Public Health Office

For Public Health Department Account No. 363-009

Requisition No. To Be Completed Feb. 28, 1969

Completed Reference W/O 616

Date	Explanation	Materials	Labor	Date	Explanation	Overhead	Other
2-19-69	Req. 61-107	$187		2-28-69	GJ6	$120	
2-19-69	P/R		$40				
2-26-69	P/R		80				
	Totals	$187	$120		Totals	$120	

SUMMARY

Item	Estimated	Actual
Direct labor	$185	$187
Materials	110	120
Overhead	110	120
Other (specify)		
Total	$405	$427

Job order or process cost accounting systems yield historical costs for comparison with the standards or estimates; investigation of the variances between predetermined and historical costs enables management to take corrective action to improve the operations and to improve the planning process.

Clerical and administrative costs

A very large part of governmental expenditures are incurred for services of a general nature (such as the costs of the chief executive's office, costs of accounting and auditing, costs of boards and commissions, etc.) which are somewhat remote from the results any given subdivision is expected to accomplish. Furthermore, in smaller units of government, many offices or departments perform such a variety of services that separating their costs is practically impossible under their present schemes of organization. For determination of unit costs, departmentalization or some other form of specialization is necessary.

As is true for other applications of governmental cost accounting, ascertaining definitely the total outlay for services to be costed is of equal importance with measuring the activity. It is probable that, in costing clerical and administrative operations, chief emphasis should be upon direct costs, because of the difficulty of obtaining a satisfactory basis for overhead allocation. In fact, overhead relationships might be so uncertain that attempts to distribute them to special activities would produce misleading results. For example, some kinds of work, such as typing of documents, might be so uniform and routine that to charge supervisory costs to the department on a per capita employee basis would be entirely inequitable.

Although much remains to be done, with complete results probably never fully obtainable because of the general nature of administrative expenses, some progress has been made in establishing work units for office operations, of which the following are a few examples:

Office	Work Unit Basis
Public recorder	Number of documents or number of lines recorded.
Treasurer	Number of tax bills prepared.
	Number of tax bills collected.
	Number of bills, notices, and receipts mailed.
	Number of parking meters serviced.
	Amount of money collected.
	Number of licenses and permits issued.
	Number of checks or warrants written.
Accounting	Number of claims examined and approved.
	Number of tax bills computed and recorded.

Successful application of unit cost accounting in administrative departments, as is true for other classes of costs, depends upon the identification of expenses to be allocated and the definition of work units to be used. Further progress in the field appears to await greater separation of costs through departmentalization of outlay for administration and of work done.

Limitations on the use of unit costs

It has been said that no unit costs are better than inaccurate ones, the reason being that unless they are reliable they may lead to unwarranted and erroneous conclusions on the part of governmental administrators, taxpayers, and the public generally. Corollary to this, it may be said that crude unit costs, although both theoretically and technically correct, may be almost as misleading as inaccurate ones. No unit cost figure, especially in government, should be used as the basis for decisive action or opinions without careful evaluation in the light of all pertinent facts. Such influences as regional variations in personnel costs, differences in climate and other physiographic conditions, size of the organization represented, and density of population in the area served are some of the factors that must be recognized if they are present and given due weight in appraising differences in unit costs. The establishment of standard costs which take into account all local circumstances and conditions has been recommended as one method for obviating the effect of comparisons with figures that are not entirely analogous. Historical costs compiled by other governmental units may not be entirely acceptable as a standard of comparison. This is true because one or more factors which affect costs in one jurisdiction may be decidedly more or less influential, or even not present. Finally, the quality of service represented by the unit of product must never be lost sight of in reaching a judgment as to the reasonableness of unit costs. Even for such objective units as gallons of water and kilowatts of electricity, there are such intangible qualities as purity, taste, pressure, reliability, attention to complaints, and other service factors. For administrative government, on the other extreme, the possibilities for variance are far greater. At best, therefore, unit cost accounting in government is not an automatic process for turning out a standardized product, but only a means for helping to accomplish a desired end.

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QUESTIONS

1. In the 50 states of the United States of America, there are almost 82,000 local governmental units—counties, townships, civil cities, school districts, drainage districts, fire protection districts, etc.—whose boundaries and functions often overlap. From the point of view of the cost of service rendered to the public, comment on this state of affairs. What other points of view should be considered besides the financial one?
2. Is it true that hospital cost analysis is important only for internal hospital management use? Why, or why not?
3. Why is departmentalization of personnel and operation essential to useful cost accounting?
4. Why are the "costs" found by *any* method of cost analysis subject to challenge?
5. In one state, there are numerous laws establishing mandatory minima for many costs of local government. This applies particularly to salaries of public officials and their deputies. What effect do such laws exert upon unit costs?
6. The rate of pay of Russell Fowler, an employee of the Public Works Department of Middle City, is $80 for a 40-hour, five-day week. Employees of the municipality are subject to a state retirement plan. For 1968 the city's contribution was 5 percent on the first $6,000 of the employee's compensation. In 1968, there were 260 working days. However, employees of the department were allowed six paid holidays. Fowler received a two weeks' vacation, in addition to which he took the maximum amount of 15 days' sick leave allowed to each employee. On the days of the primary and general elections, employees were allowed to quit work two hours early to enable them to vote.
   a) Assume that in 1969 it is desired to charge the cost of Fowler's time on each project at the cost per hour of his service in 1968. What cost per hour should be charged?
   b) By what percentage does this exceed the nominal cost per hour of his service?
7. Below are listed a number of activities and work units used in governmental cost analysis. For each one, state one or more variable factors which might arise to cause variances in unit costs.

   Street cleaning—linear mile.

Sweeping and collection of leaves—square yard.
Earth excavation—cubic yard.
Snow and ice removal—cubic yard.
Laying of mains—linear foot.
Servicing of parking meters—each.
School bus operation—pupil-day.
Billing of taxes—bill.
Garbage collection—ton.
Recording documents—document.

PROBLEMS

1. The administrator of General Hospital feels that operating room revenue may be considerably less than total operating room cost. At the present time, certain increases in rates of the General Hospital are under consideration. Based upon the expenses and statistics furnished, compute for the *operating room only* the total cost. Use the step-down method.

GENERAL HOSPITAL

Schedule of Direct Expenses
for the Six Months Ended June 30, 19—

"Overhead" departments:		
Administration	$ 81,900	
Dietary	212,940	
Housekeeping	47,320	
Laundry	29,660	
Plant operation and maintenance	112,300	$484,120
"Revenue-producing" departments:		
Inpatient medical and nursing	$272,380	
Operating room	55,000	
X-ray	46,000	
Laboratory	45,000	
Outpatient direct expense	7,500	425,880
Total Expenses		$910,000

A summary of the statistical bases which will be needed in the apportionment of overhead expenses follows (all dietary expense is charged to inpatients):

Department	*No. Employees*	*No. Sq. Ft.*	*No. Lbs. Laundry*
Administration	12	3,000	3,000
Dietary	92	11,000	220,000
Housekeeping	38	500	9,000
Laundry	13	6,000	3,000
Plant operation and maintenance	18	5,000	2,500
Inpatient medical and nursing	103	50,500	1,198,000
Operating room	14	6,000	44,000
X-ray	2	1,500	2,000
Laboratory	12	2,000	2,000
Outpatient	3	1,000	6,000
Total	307	86,500	1,489,500

If income from the operating room for this period was $55,410, what percentage of increase could be made in operating room charges and still not be charging for the service in excess of cost?

(FHFMA, adapted)

2. The Public Works department of the city of Hopewell has an agreement with the municipally owned electric utility whereby street lighting is charged to the department at the cost of generation, transmission, and distribution.

The total cost of generating, transmitting, and distributing electricity, exclusive of charges for the use of equipment, was $317,077 in a certain year. The Public Works department charges the utility for the use of municipal equipment, such charges being based on the actual cost of operation to the department. During the year, equipment units Nos. 3, 11, and 12 worked part of the time for the utility. Data regarding the number of hours operated and costs of operation are as follows:

Equipment Unit No.	*Cost of Operation*	*Total Miles (or Hours*) Operated*	*Miles (or Hours*) Operated for Utility*
3	$1,500	15,000	10,000
11	966	4,600*	3,100*
12	600	2,500*	2,300*

The utility generated a total of 66,382,000 kw.-hrs. (kilowatt hours), which were disposed as follows:

Used by utility itself:		
Station auxiliaries	3,925,000	kw.-hrs.
Other use by utility	565,000	
Sales to Public Works department	1,567,000	
Sales to other consumers	54,525,000	
Lost and unaccounted for	5,800,000	
Total	66,382,000	kw.-hrs.

Prepare a statement for the electric utility of the city of Hopewell, showing the cost of electricity furnished to the Public Works department for street lighting during the year ended December 31.

(*Municipal Finance,* adapted)

3. On the basis of the following data, prepare a statement for the city of Jonesboro for the year ended June 30, 1969, showing the total cost of refuse collection and the cost per ton or cubic yard, as the case may be (carry unit costs to mills).

Explanation	*Garbage*	*Rubbish*
By city forces:		
Salaries and wages	$384,000	$154,000
Materials and supplies	$ 26,000	$ 24,060
Equipment use	$100,280	$ 56,310
Tons collected	165,000	
Cubic yards collected		248,000
Labor hours	180,000	123,000
By contract:		
Cost	$ 52,600	$ 16,400
Tons collected	18,000	
Cubic yards collected		26,000

Overhead for city force collection of garbage is \$0.316 per labor hour; for rubbish, \$0.308 per labor hour. Overhead for contract garbage collection, 3.8 percent of total cost (exclusive of overhead); for rubbish collection, 3.61 percent of total cost (exclusive of overhead).

(Indiana State Board of Accounts, adapted)

4. When the county council, county of Monroe, questioned the county treasurer about his requests for additional appropriations, he claimed that the large number of tax bills prepared and collected was responsible for the heavy expenses of his office. Since the duties of the treasurer's office are rather uniform and of limited range, it was decided to attempt a cost study in an effort to determine the veracity of the treasurer's contentions. As tax bills are numbered serially, it is possible to determine accurately the number prepared and collected. It was decided to divide the activities of the office into general administration, billing, and collecting. General administration consists of supervising the office and providing information to taxpayers, attorneys, and others. It would be measured on the basis of thousands of dollars of collections. Preparing bills and collecting would be measured on the basis of numbers of bills prepared and collected, respectively. The following information is available about the costs of the office:

(1) The salary of the treasurer is \$1,000 per month. His time is devoted to general administration, except that during approximately three months of each year, he spends practically all his time on collections.
(2) Two regular deputies each receive \$600 per month. Their time is divided approximately four months to billing, four months to collections, and the remainder to general administration.
(3) During the year the office spent \$4,800 for extra help, of which two thirds was chargeable to billing and one third to collecting.
(4) The office collected \$90,000 of delinquent taxes, interest, and penalties during the year, of which the treasurer received 6 percent, to be charged equally to administration and collection.
(5) Utility bills, stationery and stamps, repairs to office equipment, etc., totaled \$5,478 for the year. This was distributed to administration, billing, and collection on the basis of personal services exclusive of fees charged to those operations, except that \$1,350 spent for stamped envelopes was chargeable in total to collections.
(6) The number of tax bills prepared during the year was 51,280, of which 740 were unpaid at the end of the year. The \$90,000 of delinquent taxes collected during the year was on 625 bills.
(7) Collection of current taxes during the year amounted to \$1,054,000.

You are required to do the following things:

a) Prepare a schedule classifying the treasurer's office costs into the three classes mentioned.

b) Prepare a schedule to show the total cost for each class, number of units of service performed, and cost per unit (carry unit costs to mills).

5. The city of Kempton operates a Shop and Maintenance department as a part of the general fund. It is not the practice to make formal appropriations for this department because all of its costs are recovered from other departments. When work orders are issued by the various departments, the estimated cost of the projects is encumbered by the requisitioning department. Departments having work in process at the ends of fiscal periods provide a reservation of fund balance for the amount of the outstanding work orders, and this is covered by a new appropriation in the new period. At the end of the

preceding year, outstanding departmental encumbrances for jobs to be done by the Shop and Maintenance department amounted to $7,680, and the following jobs were in process:

Job Order No.	*Cost to Date*	*Labor*	*Materials*	*Utilities*
871	$1,650	$ 860	$ 770	$20
875	790	120	660	10
876	1,220	430	750	40
877	830	190	630	10
Balance of Work in Process	$4,490	$1,600	$2,810	$80

During January of the current year, the following transactions, related to the Shop and Maintenance department, occurred:

(1) The city council enacted a special appropriation to cover outstanding encumbrances for work to be done by the Shop and Maintenance department.

(2) Work orders were issued against the Shop and Maintenance department for $45,610 of work to be done during the year. For these work orders the Shop and Maintenance department set up job orders numbered 878–883.

(3) The Shop and Maintenance department requisitioned and received material from the Stores Inventory department as follows:

Job Order No.	*Amount*
875	$ 260
876	570
877	120
878	440
879	680
880	60
881	1,210
882	80
883	120

(4) Departmental payroll for the Shop and Maintenance department for January amounted to $2,210; and, based on labor tickets, the following distribution was made:

Job Order No.	*Amount*
871	$ 60
875	180
876	220
877	350
878	405
879	640
880	85
881	270

Charges should be made directly to Work in Process.

(5) Utility bills for the month had not been received at the end of the month, but charges to job orders for estimated utility bills were as follows:

Job Order No.	*Amount*
871	$ 5
875	10
876	10
877	15
878	15

879	30
880	5
881	50
882	5
883	10

(6) During the month the following excess materials were returned to stores:

Job Order No.	*Amount*
879	$40
881	60

(7) $20 worth of material issued for No. 878 and $10 for No. 876 were transferred to No. 882.

(8) The following jobs were completed during January:

Job Order No.	*Estimated Cost*
871	$1,200
875	1,210
876	1,550
878	900

a) Make journal entries for the transactions stated or referred to above. Where charges or credits to jobs are concerned, state in your explanation the amount of charges or credits to each job.

b) For the jobs completed, make a cost summary to show details of cost for each one: total cost, estimated cost, and over- or underestimated cost.

6. You have been requested by the Hillcrest Blood Bank, a nonprofit organization, to assist in developing certain information from the bank's operations. You determine the following:

(1) Blood is furnished to the blood bank by volunteers and when necessary by professional donors. During the year 2,568 pints of blood were taken from volunteers and professional blood donors.

(2) Volunteer donors who give blood to the bank can draw against their account when needed. An individual who requires a blood transfusion has the option of paying for the blood used at $25 per pint or replacing it at the blood bank. Hospitals purchase blood at $8 per pint.

(3) The Hillcrest Blood Bank has a reciprocal arrangement with a number of other banks that permits a member who requires a transfusion in a different locality to draw blood from the local bank against his account in Hillcrest. The issuing blood bank charges a set fee of $14 per pint to the home blood bank.

(4) If blood is issued to hospitals but is not used and is returned to the blood bank, there is a handling charge of $1 per pint. Only hospitals are permitted to return blood. During the year 402 pints were returned. The blood being returned must be in usable condition.

(5) Blood can be stored for only 21 days and then must be discarded. During the year 343 pints were outdated. This is a normal rate of loss.

(6) The blood bank sells serum and supplies at cost to doctors and laboratories. These items are used in processing blood and are sold at the same price that they are billed to the blood bank. No blood bank operating expenses are allocated to the cost of sales of these items.

(7) Inventories of blood are valued at the sales price to hospitals. The sales price to hospitals was increased on July 1, 1968. The inventories are as follows:

	Pints	*Sales Price*	*Total*
June 30, 1968	80	$6	$480
June 30, 1969	80	8	640

(8) The following financial statements are available:

HILLCREST BLOOD BANK

Balance Sheet

Assets	*June 30, 1968*	*June 30, 1969*
Cash	$ 2,712	$ 2,093
U.S. Treasury Bonds	15,000	16,000
Accounts receivable—sales of blood:		
Hospitals	1,302	1,448
Individuals	425	550
Inventories:		
Blood	480	640
Supplies and serum	250	315
Furniture and equipment, less depreciation	4,400	4,050
Total Assets	$24,569	$25,096
Liabilities and Surplus		
Accounts payable—supplies	$ 325	$ 275
Surplus	24,244	24,821
Total Liabilities and Surplus	$24,569	$25,096

HILLCREST BLOOD BANK

Statement of Cash Receipts and Disbursements for the Year Ended June 30, 1969

Balance, July 1, 1968:			
Cash in bank			$ 2,712
U.S. Treasury Bonds			15,000
Total			$17,712
Receipts:			
From hospitals:			
Hillcrest Hospital	$7,702		
Good Samaritan Hospital	3,818	$11,520	
Individuals		6,675	
From other blood banks		602	
From sales of serum and supplies		2,260	
Interest on bonds		525	
Gifts and bequests		4,928	
Total receipts			26,510
Total to be accounted for			$44,222
Disbursements:			
Laboratory expense:			
Serum	$3,098		
Salaries	3,392		
Supplies	3,533		
Laundry and miscellaneous	277	$10,300	
Other expenses and disbursements:			
Salaries	$5,774		
Dues and subscriptions	204		
Rent and utilities	1,404		
Blood testing	2,378		
Payments to other blood banks for blood given to members away from home	854		
Payments to professional blood donors	2,410		
Other expenses	1,805		
Purchase of U.S. Treasury Bond	1,000	15,829	
Total disbursements			26,129
Balance, June 30, 1969			$18,093

Composed of:	
Cash in bank	$ 2,093
U.S. Treasury Bonds	16,000
Total	$18,093

Required:

a) Prepare a statement on the accrual basis of the total expense of taking and processing blood.

b) Prepare a schedule computing (1) the number of pints of blood sold, and (2) the number of pints withdrawn by members.

c) Prepare a schedule computing the expense per pint of taking and processing the blood that was used.

(AICPA)

Chapter 22

Published Reports of Governmental and Nonprofit Entities

The National Committee on Governmental Accounting has taken the position that:

> The end toward which all governmental accounting is directed is the production of timely, accurate, pertinent, and fairly-presented financial statements and reports for use by management, legislative officials, the general public, and others having need for public financial information.[1]

The technical accounting aspects of financial statements for the various municipal funds, Federal government, and certain categories of nonprofit entities are illustrated and discussed in a number of preceding chapters to the extent relevant to the purposes of those chapters. Management uses of financial data are also discussed in preceding chapters, particularly Chapter 2 and Chapter 21. In this concluding chapter, the discussion is focused upon published financial reports as a means of communicating with interested parties outside the administrative structure.

Legal requirements

Governmental units and governmental enterprises in a number of jurisdictions are required by law to publish financial reports in newspapers as paid advertising. All too frequently the only sort of report required by law is a listing of cash receipts and a listing of cash disbursements; often there is no classification of disbursements as to function or nature, merely a listing of payees and amounts of each voucher.

The widespread recognition that lists of receipts and disbursements are totally inadequate to meet the needs of any interested parties for information has led to the consideration by many professional groups of the problems of reporting, and to the establishment of standards of "public financial reporting" by the Municipal Finance Officers Association and the National Committee on Governmental Accounting.

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[1] National Committee on Governmental Accounting, *Governmental Accounting, Auditing, and Financial Reporting* (Chicago: Municipal Finance Officers Association, 1968), p. 14.

Criteria for judging a municipal financial report

The Municipal Finance Officers Association awards a "Certificate of Conformance" to each governmental unit whose financial report meets established standards. The criteria used in judging whether a municipal financial report meets these standards specify technical considerations, such as the promptness with which the report was issued after the close of the fiscal year—up to two and a half months is permissible; and matters of format, including the logical arrangement of statements, proper headings on the statements and the report, the provision of a table of contents, and cross-referencing of statements. Each acceptable report must contain a balance sheet for each fund, prepared in accord with the principles explained in earlier chapters of this text. In addition, statements comparing total revenues and total expenditures, estimated and actual revenues, and appropriations and expenditures all should be prepared for the general fund; revenues should be listed by source; appropriations and expenditures are to be listed by function, and within each function by organization unit. For funds other than the general fund, appropriate statements such as income and expense statements for utility and other enterprise funds must be included. The report should also include a statement analyzing changes in the balance or retained earnings of each fund.

Subsidiary schedules should be included, as appropriate, to show: a detailed listing of the investments of each fund, the fixed assets classified by functions and organization units, and the details of bonded indebtedness. Additionally, an acceptable report will include statistical data such as a statement of assessed values for the past 10 fiscal periods, a statement of tax rates and tax levies for the last 10 fiscal periods, and a statement showing the ratio of net general bonded debt to assessed value and net bonded debt per capita for the last 10 fiscal periods.

In judging whether a municipal report meets desirable standards, the Municipal Finance Officers Association committee requires that the report state the basis of accounting—accrual, cash, or modified cash basis; that any terms or account titles peculiar to the governmental unit be explained; and that the nature, purpose, and legal authority for each fund be explained. In addition to the financial statements, statistical tabulations, and explanations mentioned in the paragraphs above, a good report will contain a letter of transmittal in which the outstanding financial activities during the year, the financial condition at the end of the year, and the prospects for the coming year are discussed.

The criteria used in determining whether a report merits the MFOA Certificate of Conformance are quite detailed, and, apparently, are adhered to rather rigorously: only 250 certificates were issued between 1945, the year the award was inaugurated, and 1968. The impact upon the financial reporting practices, however, is undoubtedly wider than the number of certificates issued would indicate. Many of the almost 82,000

entities classifiable as municipalities have few transactions in the course of a year, involving relatively small amounts of money, and are of concern to such a small number of people that the detailed requirements of the Certificate of Conformance program are clearly inapplicable. The general concepts which may be deduced from the MFOA criteria are of value to any entity faced with the necessity of reporting to individuals or groups who may be presumed to have enough knowledge to be able to read accounting and statistical statements.

Illustrative municipal financial report

The City of Buffalo, New York, has been awarded the Municipal Finance Officers Association Certificate of Conformance for its annual reports. Illustration 22–1 shows the table of contents. The reader will note that in addition to the statements and schedules specified in the preceding pages, the report contains several graphic presentations designed to meet the basic information needs of taxpayers, and other interested persons, who do not have technical accounting knowledge. The traditional combined balance sheets of all funds are presented in Illustration 22–2. Illustration 22–3 is a graphic chart of the "Operation of the 1966–67 Budget" of the City of Buffalo; in essence, a pictorial representation of the traditional statement of source and application of funds.

Criteria for judging reports of nonprofit entities

Standards for annual financial reports of hospitals have been established by the American Hospital Association. Other organizations have established criteria for reports of other categories of nonprofit entities; for example, the National Health Council and National Social Welfare Assembly joined in publishing *Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organizations,* and the National Committee on the Preparation of a Manual on College and University Business Administration set forth the committee's recommendations on the contents of reports of colleges and universities. Additional examples could be cited, but it is more useful for the purposes of this text to deal with the general aspects of reporting by nonprofit entities than to discuss in detail the recommendations of any one organization.

In general, nonprofit entities differ from governmental entities in that persons are required by laws to pay taxes and other classes of revenue to governmental units, whether or not they want to receive any services from the government or do receive any; whereas there is some element of volition in the relationship of an individual with nonprofit entities other than governments. Thus, the reports of a nonprofit entity should provide information in addition to accounting and statistical data to enable constituents to determine answers to the following questions:[2]

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[2] Voluntary Health and Welfare Agencies in the United States, Their Role and Responsibilities (New York: The Rockefeller Foundation, 1960).

Illustration 22-1

CONTENTS PAGES OF CITY OF BUFFALO ANNUAL REPORT

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CONTENTS—Continued

CONTENTS—Continued

Illustration 22-2

COMBINED BALANCE SHEET—CITY OF BUFFALO

Exhibit J-1

CITY OF BUFFALO

Combined Balance Sheet — All Funds

June 30, 1967

Assets

	Total	General Fund	Bond Funds	Revolving Funds	Local Fund	Trust and Agency Funds	Utility Fund	General Fixed Assets	General Bonded Debt	Board of Education Funds Unaudited
Cash	$ 2,719,457.22	$ 1,279,436.42	$ 220,002.27	$244,990.17	$ 22,884.22	$247,220.73	$ 448,803.56	$ —	$ —	$ —
Cash with Agents	1,293,621.12	316,514.23	648,542.76	—	—	—	87,277.89	—	—	212,290.31
Investments — At Cost	41,259,475.86	3,770,802.62	14,710,820.22	75,000.00	—	194,915.60	2,827,860.42	—	—	—
Accounts Receivable (Net)	721,029.03	79,262.32	312.09	—	—	—	582,035.30	—	—	62,078.21
Mortgages Receivable	47,797.04	7,254.30	—	33,523.74	—	—	—	—	—	—
Tax Sale Certificates Receivable	2,616,213.49	2,616,213.49	—	—	—	—	—	—	—	—
Assessments Receivable	849,091.88	210,878.78	—	—	522,253.10	—	—	—	—	—
Utility Tax Receivable	54,276.05	54,276.05	—	—	—	—	—	—	—	—
Due from Other Funds	11,297,415.59	101,829.87	—	—	—	655.22	—	—	—	11,294,917.49
Due from Other Governmental Agencies	19,097,829.14	621,723.89	9,211,862.62	—	—	—	—	—	—	9,264,242.63
Unlevied Local Assessments	106,328.00	—	—	—	106,328.00	—	—	—	—	—
Real Estate Acquired for Resale	351,277.06	—	—	351,277.06	—	—	—	—	—	—
Unissued Bonds	16,216,000.00	—	10,547,000.00	—	—	—	—	—	—	5,679,000.00
Amounts Available and to be Provided for Retirement of Bonds, Notes, Contracts and Interest	89,321,046.06	1,760,000.00	—	—	—	—	—	—	87,581,046.06	—
Land, Buildings, Structures and Equipment (Net)	392,497,292.66	—	—	—	—	—	60,279,947.45	217,652,590.59	—	114,541,844.71
Construction Work in Progress	495,590.85	—	—	—	—	—	495,590.85	—	—	—
Total	$279,493,509.15	$10,931,962.10	$25,416,729.87	$784,865.97	$632,495.32	$442,921.65	$64,816,622.22	$217,652,590.54	$87,581,046.06	$141,171,279.46

Exhibit J-1

CITY OF BUFFALO

Combined Balance Sheet — All Funds

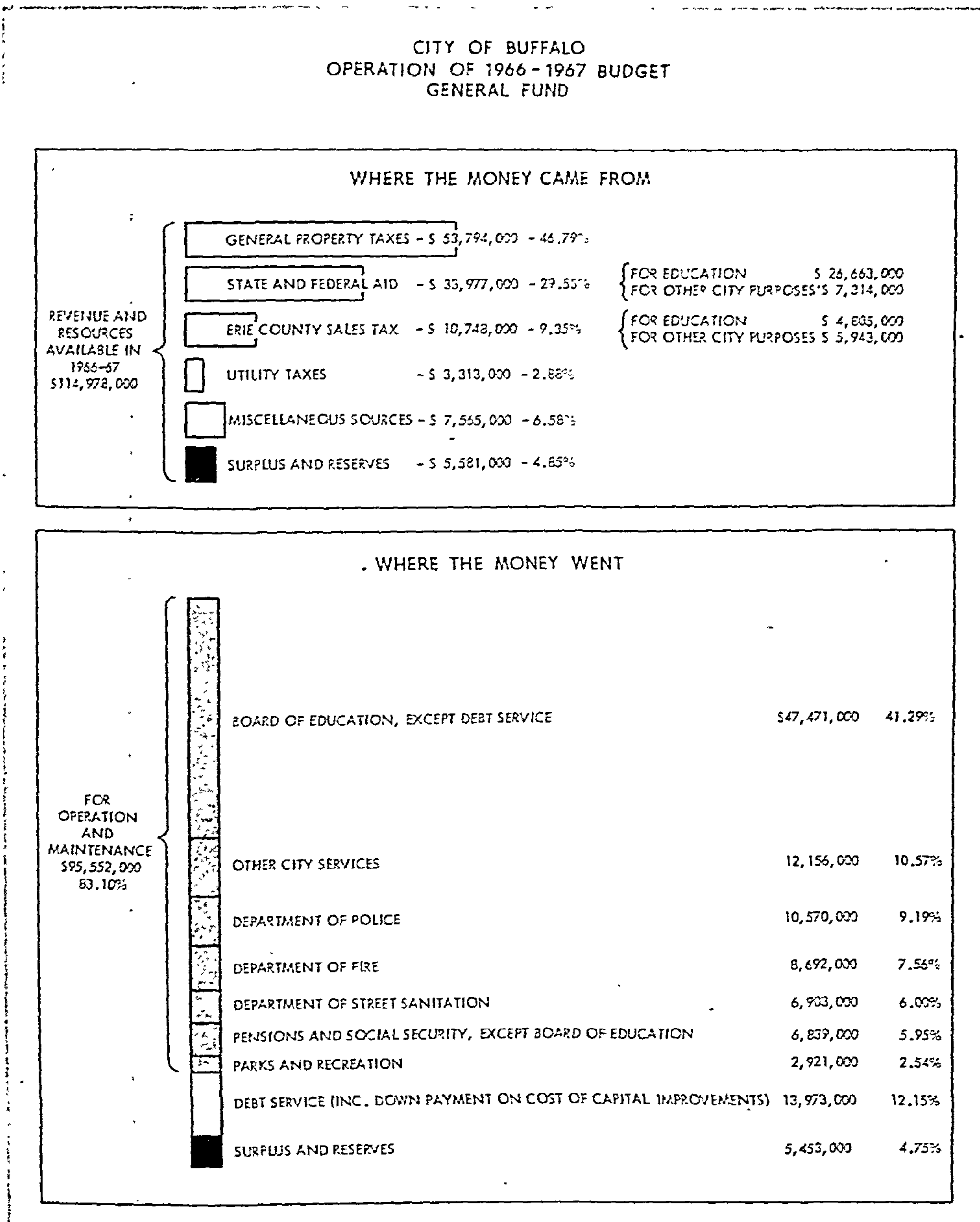
June 30, 1967

Liabilities, Appropriations, Reserves and Surplus

	Total	General Fund	Bond Funds	Revolving Funds	Local Fund	Trust and Agency Funds	Utility Fund	General Fixed Assets	General Bonded Debt	Board of Education Funds Unaudited
Liabilities										
Accounts Payable	$ 2,338.58	$ —	$ —	$ —	$ —	$ —	$ 2,331.24	$ —	$ —	$ 7.34
Matured Bonds and Interest Payable	35,651.08	29,021.25	—	—	—	—	3,097.60	—	—	2,529.73
Due to Other Funds	11,279,415.59	12,792.03	10,816,870.97	175,203.12	100,000.00	1,929.87	—	—	—	272,441.54
Due to Other Governmental Units	1,767,947.01	1,747,285.62	—	10,701.29	—	—	—	—	—	—
Interest Payable in Future Years	11,984,946.06	—	—	—	—	—	—	—	11,984,946.06	—
Bonds and Notes Payable	127,271,062.62	—	25,690,902.62	—	—	—	15,872,000.00	—	75,596,100.00	10,474,000.00
Total Liabilities	$152,401,341.16	$ 1,789,102.02	$76,516,773.59	$185,904.51	$100,000.00	$ 1,929.87	$15,877,428.74	$ —	$87,581,046.06	$ 11,441,981.67
Appropriations	$ 10,474,186.59	$ —	$ 6,938,663.29	$120,714.25	$ 13,974.67	$ —	$ —	$ —	$ —	$ 3,397,842.82
Fund Balances	$ 440,991.78	$ —	$ —	$ —	$ —	$440,991.78	$ —	$ —	$ —	$ —
Reserves,										
Encumbrances	$ 21,437,652.74	$ 850,493.81	$ 8,831,794.93	$ 3,627.39	$ 64,201.23	$ —	$ 118,910.56	$ —	$ —	$ 11,611,425.62
Advances	686,491.77	—	666,542.76	—	—	—	—	—	—	19,927.01
Mortgages	47,793.04	7,254.30	—	21,523.74	—	—	—	—	—	—
Due from Other Governmental Units	871,817.25	871,817.25	—	—	—	—	—	—	—	—
Capital Budget	19,680.79	19,680.79	—	—	—	—	—	—	—	—
Debt Service	2,380,148.79	1,791,610.68	—	—	—	—	256,806.79	—	—	331,671.32
Real Estate Acquired for Resale	351,277.06	—	—	351,277.06	—	—	—	—	—	—
Tax Sale Cert Reserve	2,616,213.49	2,616,213.49	—	—	—	—	—	—	—	—
Bond Projects Authorized	2,435,000.00	—	2,435,000.00	—	—	—	—	—	—	—
Downtown Garages	825,995.06	825,995.06	—	—	—	—	—	—	—	—
Repairs, Replacement and Debt Service	926,945.88	—	—	—	—	—	926,945.88	—	—	—
Total Reserves	$ 22,794,043.83	$ 6,473,171.32	$11,933,337.69	$788,436.18	$ 64,201.23	$ —	$ 1,197,662.73	$ —	$ —	$ 12,673,226.96
Municipality's Contribution	$ 45,071,532.75	$ —	$ —	$ —	$ —	$ —	$45,071,223.75	$ —	$ —	$ —
Surplus										
Investment in Fixed Assets	$332,159,431.21	$ —	$ —	$ —	$ —	$ —	$ —	$217,652,590.54	$ —	$114,541,814.71
Unappropriated Surplus General City	3,131,008.43	2,663,688.95	—	—	474,319.42	—	—	—	—	—
Special Revenue Fund — Board of Education	579,573.07	—	—	—	—	—	—	—	—	579,573.07
Total Surplus	[illegible]	$ 2,663,688.95	$ —	$ —	$474,319.42	$ —	$ —	$217,652,590.54	$ —	$115,121,[illegible]
Total	$279,493,509.15	$10,931,962.10	$25,416,729.87	$784,865.97	$632,495.32	$442,921.65	$64,816,622.22	$217,652,590.54	$87,581,046.06	$141,171,279.46

Illustration 22–3

CITY OF BUFFALO
Annual Report of the Comptroller—1967



1. Is the service provided by the organization needed for the good of the social group?
2. Is there need for the volume of service proposed by the organization?
3. Is the organization providing the service in an efficient manner?
4. Is the organization using its resources for the intended purpose?

Accountants imbued with a tradition of reporting only objectively verifiable data may find it difficult to accept the premise that the report of a nonprofit entity should concern itself with the first two questions. Certainly the accounting and statistical information must be factual and not presented in a manner "slanted" to lead the reader to conclusions favorable to the entity and its management; yet the narrative information accompanying the accounting and statistical reports may properly present the rationale for the existence of the entity and its activities, just as the narrative in published reports of profit-seeking entities is customarily a public relations effort. Factual information developed in the preparation of performance budgets for the entity, and cost data related to the activities of the entity, as discussed in Chapters 2 and 21, are directly relevant to the questions listed above and should be presented along with financial statements for each fund of the entity. One research study points out some desirable features of the statements:[3]

> Financial statements should be organized so as to reflect, insofar as is practically possible, the relationship between services rendered and operating outlays. A statement of resources available for rendering the intended services should be made. A statement showing the sources and applications of current operating resources is required to measure the extent of compliance with the approved budget.

Illustrative report of nonprofit entity

American Hospital Association recommendations for the content of technical accounting statements are discussed in Chapter 20; statements illustrated in that chapter are based upon AHA recommendations. As is typical of administrators of nonprofit health, welfare, and charitable entities, hospital administrators tend to present audited traditional financial statements to the hospital board of trustees, creditors, and others who need detailed information. Hospital administrators, however, tend to omit the traditional financial statements from the published annual reports which are directed to the public, which, presumably, has only a general interest in financial data and a specific interest in the activities of the hospital. Illustrations 22–4 and 22–5 are extracted from the annual report of a large hospital. Illustration 22–4 shows selected data from the financial statements in two forms: numerical and graphic. Illustration 22–5 also combines a descriptive presentation of activities with selected comparative statistics.

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[3] Emerson Henke, *Accounting for Nonprofit Organizations: An Exploratory Study* (Bloomington: Indiana University Bureau of Business Research, 1965), p. 24.

Illustration 22-4

FINANCIAL REPORT

GHS

GREENVILLE HOSPITAL SYSTEM

YEAR ENDED OCTOBER 8, 1967

GROSS PATIENT REVENUE:		
INPATIENTS	$11,689,543	
OUTPATIENTS	996,486	
		$12,686,029
DEDUCT CONTRACTUAL ALLOWANCES, CHARITY SERVICES AND UNCOLLECTIBLE ACCOUNTS		2,202,131
NET PATIENT REVENUE		10,483,898
COST OF PATIENT CARE		10,295,054
GAIN FROM PATIENT SERVICES (1.5% OF GROSS REVENUE)		$ 188,844*

*In addition to this gain from patient services there were donations for specific purposes from The Duke Endowment, Lions Club, Sertoma Club, Greenville County Medical Society and others totaling $90,433 and other non-patient revenue in the amount of $83,457.

Data taken from Auditors' Report for year ended October 8, 1967, prepared by Winn, Wright and Potter, Certified Public Accountants.

GREENVILLE HOSPITAL SYSTEM—COST OF PATIENT CARE (IN MILLIONS)

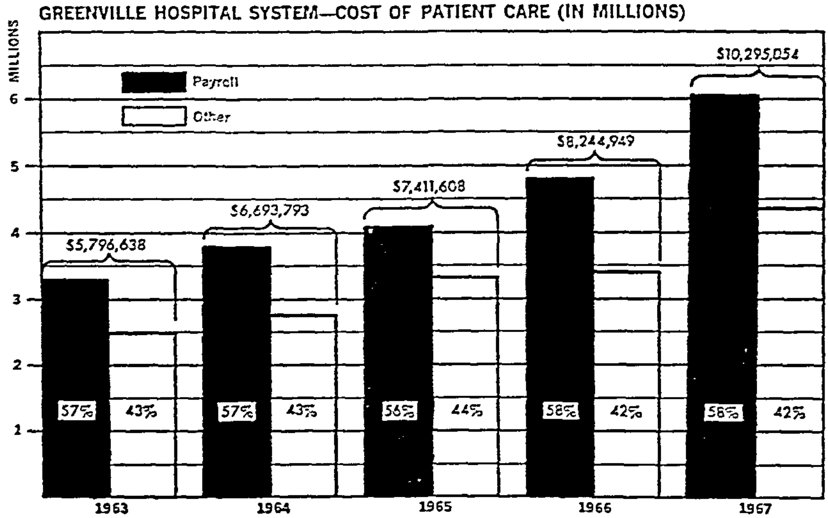
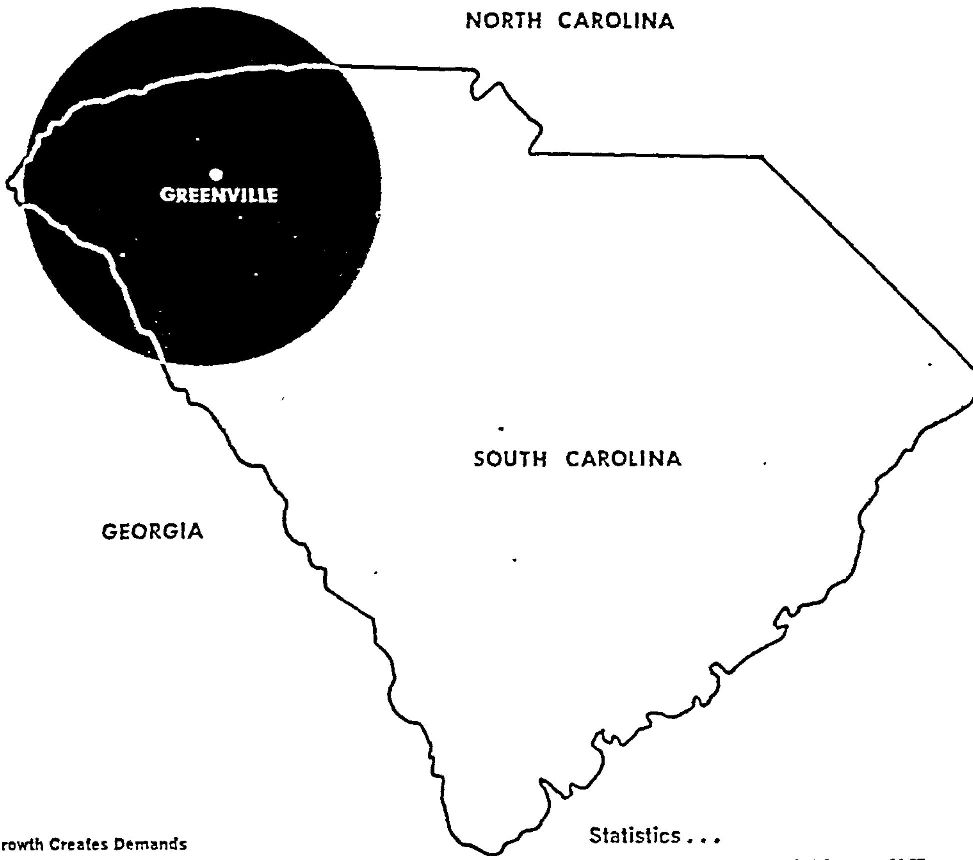


Illustration 22–5

SELECTED COMPARATIVE STATISTICS AND PICTURES OF ACTIVITIES
(Taken from Annual Report of Greenville General Hospital System)



Growth Creates Demands

Growth in population, reflecting the area's continued progress, has a direct bearing on health care facilities of the Greenville Hospital System serving the people of Greenville County. As a progressive medical center, some patients come from adjacent areas and neighboring states.

According to studies and trends, Greenville County experienced a 24.8 per cent increase in population from 1950-1960. In 1967, Greenville County's population is 234,500, with this estimate based on a detailed analysis of employment, school enrollment, birth and death records, electrical power connections and other available data.

Economists and area planners predict Greenville County's population will continue to grow, because of the area's strategic geographic location, desirable living conditions and economic vitality. They estimate Greenville County's population will be 293,700 *in 1975 and* 410,300 *in 1985.*

These same studies indicate that the population of the six-county northwestern region of South Carolina will increase *from 586,519 in 1960 to about 900,000 in 1985.*

Briefly stated, these trends mean the population of Greenville County and the northwestern area of our state will almost double by 1985.

Statistics . . .

	1966	1967
PATIENTS DISCHARGED	32,406	33,987
CLINIC VISITS	29,635	31,937
EMERGENCY ROOM VISITS	38,904	42,224
BIRTHS	3,622	4,042
X-RAY EXAMINATIONS	55,763	67,866
LABORATORY TESTS	343,335	518,008
OPERATIONS	17,469	17,969
PHYSICAL THERAPY VISITS	26,640	31,449
ELECTROCARDIOGRAMS	8,450	9,816
BLOOD TRANSFUSIONS	5,771	5,904
MEALS SERVED	1,164,114	1,105,437
LINEN LAUNDERED (POUNDS)	2,881,146	3,359,705
PATIENT DAYS (ADULT)	260,965	279,855
NUMBER EMPLOYEES PER IN-PATIENT	1.9	1.9

Necessity for proper audit

Published reports of profit-seeking businesses customarily contain an expression by a certified public accountant of his opinion regarding the financial statements. The standard short form of independent auditor's report contains the following "opinion" paragraph:

> In our opinion the accompanying balance sheet and statement(s) of income and retained earnings present fairly the financial position of X Company at June 30, 19—, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Readers of financial reports of governmental units and of nonprofit entities are as entitled to the assurance of an independent auditor as are readers of financial statements of profit-seeking enterprises. In recognition of this fact, the inclusion of an opinion by a certified public accountant in the annual report is a growing (but far from universal) practice in the case of governmental units and, also, in the case of nonprofit entities. The Comptroller General of the United States is responsible for auditing agencies of the federal government (statutory provision is made for the audit of business-type federal corporations by certified public accountants).

In a number of states, municipalities and state offices must, by law, be audited by the state audit agency; in other states, municipalities, and certain state offices, are to be audited by the state auditors only if they fail to secure audits by independent accountants. A nonprofit entity is subject to state audit law in several states if it is receiving, or has received, some financial support from a governmental unit, or simply because it is deemed to be in public interest to ascertain that contributed assets are properly accounted for and that the statements of the entity "present fairly its financial position and the results of its operations."

Audits by independent CPA's

The fact that the phrase "generally accepted accounting principles" is not interpreted the same way in the case of governmental entities and nonprofit entities (and not the same for all categories of nonprofit entities) as it is in the case of profit-seeking entities has led to some disagreement within the accounting profession as to the propriety of CPA's using the standard short-form opinion with regard to the statements of governmental and nonprofit entities. The Committee on Auditing Procedure of the American Institute of Certified Public Accountants presently takes the position that:[4]

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[4] Committee on Auditing Procedure, AICPA, *Auditing Standards and Procedures, Statements on Auditing Procedure No. 33* (New York, 1963), p. 90.

In those areas where the independent auditor believes generally accepted accounting principles have been clearly defined, he may state his opinion as to the conformity of the financial statements either with *generally accepted accounting principles* or (less desirably) with *accounting practices* for nonprofit organizations in the particular field . . .

If the independent auditor believes that generally accepted accounting principles have not been clearly defined for the category of nonprofit entity under examination, the AICPA Committee on Auditing Procedure recommends that disclosure of variances from accrual accounting statement presentation be made in the statements of the nonprofit entity, or in the footnotes to the statements, or, less preferably, in the independent auditor's report. If the independent auditor feels that the statements of the nonprofit entity are so at variance with those that would have been presented if accrual accounting principles had been applied, the committee recommends that the auditor express the opinion that the statements *do not* present fairly the entity's financial position or the results of its operations.[5] An adverse opinion would tend to have serious consequences on the ability of a voluntary nonprofit organization to secure contributions, to borrow money, and even to secure the services of volunteer workers. In an effort to facilitate the continued existence of worthy organizations, certified public accountants have participated in the preparation of accounting and reporting manuals such as those previously cited in this text. Members of the Committee on Relations with Nonprofit Organizations of the AICPA assisted in the preparation of the National Health Council and National Social Welfare Assembly manual, and the AICPA committee prepared a companion volume, *Audits of Voluntary Health and Welfare Organizations,* for use within the accounting profession. Illustration 22–6 shows the report of the independent auditors which accompanied the *Annual Report of the Comptroller of the City of Buffalo,* portions of which are presented in Illustrations 22–1, 22–2, and 22–3.

Audits by governmental auditors

Audits conducted by governmental agencies may be directed at the expression of an opinion on the fairness of the presentation of financial statements, just as are audits by certified public accountants. Three other objectives, however, are more common:

1. The determination that applicable laws and regulations have been complied with by the entity under examination.
2. The evaluation of agency financial management systems.
3. The improvement of agency financial management.

Adherence to laws. For many years the only objective of governmental auditors was to determine that applicable laws and regulations had been

[5] *Ibid.,* pp. 88–89.

Illustration 22–6

CITY OF BUFFALO
Annual Report of the Comptroller—1967

ARTHUR YOUNG & COMPANY

725 MARINE TRUST BUILDING
BUFFALO NEW YORK 14203

ACCOUNTANTS' REPORT

The Honorable George D. O'Connell
Comptroller of the City of Buffalo
Buffalo, New York

We have examined the accompanying balance sheets of the various funds of the City of Buffalo at June 30, 1967 and the related statements of revenues, expenditures and surplus for the year then ended, Exhibits A through H and J, except for the funds of the Board of Education of the City of Buffalo included in Exhibits J. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

It is the practice of the City of Buffalo to keep accumulative balances of accounts for lands, buildings, structures and equipment, designated as General Fixed Assets and Utility Plant in Service. Retirements of such items are recorded only when properties are sold. It was not practicable for us to verify the accumulated balances, however, we did test additions to the fixed assets for the fiscal year under review.

In our opinion, except for the above comment with respect to General Fixed Assets and Utility Plant in Service, and for the funds of the Board of Education which we did not examine, the statements mentioned above present fairly the financial position of the various funds of the City of Buffalo at June 30, 1967 and the results of their operations for the year then ended, in conformity with generally accepted principles of municipal accounting applied on a basis consistent with that of the preceding year.

Arthur Young & Company

September 12, 1967

adhered to by the office under examination. A number of state audit agencies appear to have this view even today. The United States General Accounting Office, the office which audits civilian and military agencies of the federal government, was primarily concerned with the legality of disbursements, and the matching of expenditures with proper appropriations, until shortly after World War II.

Evaluation of financial management systems. Governmental auditors, encouraged by study groups such as the Hoover Commissions, have in the past two decades made considerable progress in changing from the rather sterile objective of determining that applicable laws were followed to the considerably broadened objective of evaluating agency financial management systems. Since the mid-1960's, the annual reports of the Comptroller General of the United States have stressed that increasing emphasis is being placed upon making examinations into the operation of agency financial management systems. As a part of such examinations, specific attention is devoted to evaluating the effectiveness of agency accounting systems in producing useful financial information, in assisting in the control of resources, and in otherwise achieving the objectives for federal agency accounting prescribed by the Congress.

The final phrase in the preceding sentence emphasizes that the determination that applicable laws have been adhered to is still a part of the duty of governmental auditors, even though the primary objective of the examination may have been considerably broadened, as has been the case for the General Accounting Office and audit agencies of certain other jurisdictions.

Improvement of agency financial management. The General Accounting Office issues reports to the Congress if, in the Comptroller General's judgment, congressional consideration or action appears necessary. The majority of the audit reports, however, are directed to agency officials, consistent with the statement by the Comptroller General that one of the principal objectives of the work of the GAO is to assist the agencies in bringing about greater effectiveness, efficiency, and economy in the conduct of their programs and activities.

Because of the immensity of the federal government operations and the relatively small size of its audit staff, the policy of the General Accounting Office has been to direct its attention to the areas which are expected to be most productive of significant findings and recommendations for improving operations. Accordingly, most GAO reports are concerned with specific activities, and are not intended as overall evaluations of agency performance. Illustration 22–7 presents an example of the summary report on a review of potential savings by buying rather than leasing specialized transportation equipment by the Department of the Air Force. Interested parties are furnished with a detailed report supporting the summary.

Illustration 22-7

EXAMPLE OF GENERAL ACCOUNTING OFFICE SUMMARY REPORT

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. [illegible]

B-133019

To the President of the Senate and the
Speaker of the House of Representatives

The General Accounting Office has made a review of the Air Force system for redistributing excess parts and other material from Air Force bases to supply depots. This report presents our findings and corrective actions taken by the Air Force.

Our review showed that, during the last 3 months of 1966, three Air Force supply depots received over 370,000 shipments of items from various Air Force bases. On the basis of our tests, we estimate that over 125,000, or about 34 percent, of these shipments were uneconomical for two reasons. They involved material with which the Air Force was already well supplied or was in an excess position or material with a value less than the costs incurred for its return.

We estimate that the packaging, handling, and other administrative costs incurred in connection with the uneconomical shipments received at the three depots totaled about $1.3 million for the 3 months. If the conditions found during this 3-month period are representative of the conditions existing for the entire year, these costs could amount to over $5 million for the year. Because of the many factors involved in estimating transportation costs, we did not attempt to estimate such costs with respect to the above shipments. However, it is evident that substantial transportation costs were also incurred in connection with these uneconomical shipments.

In general, the uneconomical shipments were made because:

--procedures for screening excesses did not call for determination of stock status for certain types of items before authorization of their return,

--procedures called for return of unserviceable items without a determination as to whether there was sufficient serviceable stock already available, and

Illustration 22–7 (continued)

B-133019

--procedures did not provide for consideration of the value of the material being returned in relation to the costs to be incurred for shipment.

During our review, Air Force officials advised us of two systems which they believed would prevent uneconomical returns to the depots of much of this material in the future.

When we brought our findings to the attention of the Secretary of Defense, we pointed out that these new systems would not apply to all items. In order to prevent uneconomical shipment of the items not covered by the two systems, we proposed that retention levels be established so that Air Force bases could retain limited quantities of these items in excess of their requisitioning objectives. Such retention levels would apply unless the items were needed elsewhere, were obsolete, or their retention would entail an increase in overall base storage costs that would exceed the value of the items.

The Deputy for Supply and Maintenance, Office of the Assistant Secretary of the Air Force (Installations and Logistics), commented on our findings and proposal by letter dated October 3, 1967. He stated that the Air Force concurred in our proposal and was modifying its current policy to require bases to retain up to a 365-day level of supply of material in excess of base requisitioning or reorder level, and for which there would be a possible need based on past demands.

We believe that the course of action outlined by the Air Force, if properly implemented, will be effective. We were also informed that the Air Force Auditor General would look into the area of redistribution of base excess materials during the latter half of fiscal year 1968. We will inquire into the effectiveness and adequacy of these actions during future reviews.

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; and the Secretary of the Air Force.

Elmer B. Staats

Comptroller General
of the United States

Summary

Auditing and reporting are important in government because both help to protect the taxpayers' financial interests. It may be said that they are probably more important in government than in private enterprise. In the first place, there is a tendency in the public mind to judge officials by the amount of money they spend rather than by the economy and efficiency

with which their offices are operated. In the second place, the two-party system of government leads to dissemination of much unofficial and unauthentic information. Independent audits and reports are especially salutary in coping with these conditions. It must be admitted, however, that the real use of governmental financial reports by the general public is so slight as to be almost negligible.

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QUESTIONS

1. To what end is all governmental accounting directed?
2. If you were the chief financial officer of a medium-sized municipality, what should you use as your principal source for determining whether your reports meet established standards? To what source would you go if you were chief financial officer of a hospital? of a charitable organization? of a college?
3. What nonaccounting and nonstatistical information needs to be presented to the constituents of a nonprofit entity?
4. The standard short-form opinion used by certified public accountants sets forth that the financial statements are presented in conformity with "generally accepted accounting principles." What is the meaning of this phrase in governmental accounting?
5. Is the failure of a local governmental unit to adhere to "generally accepted principles" of governmental accounting always the fault of the financial employees of that unit?
6. If you are a private accountant engaged to audit governmental accounts, what special interest should you have in the appropriation ordinance for the year in which your work is done?
7. If a large municipality regularly issues comprehensive reports of a popular nature, prepared by its own accounting and auditing staff, should this supplant audits and technical reports by independent auditors? Why?
8. Suppose that in auditing the accounts and transactions of a trust fund, you are confronted with a lack of conclusive evidence as to what the fund is supposed to do and can legally do. How would this affect the nature of your report, and what recommendation would you make?
9. In audits of mercantile and manufacturing enterprises, a major responsibility of the auditor is verification and valuation of inventories. Does this problem appear in the audit of any kinds of governmental activity?
10. *a*) Outline an audit program to be followed in the audit of a large endowment fund held by a charitable institution. The assets consist principally of securities. This is your first audit of the fund.

    b) Prepare an illustration of the principal working paper or papers you would use in the verification of the securities and the income from securities of the endowment fund. You need not use figures, provided the heading of each column is specific or provided you indicate what would be entered in each column.

(AICPA)

PROBLEMS

1. The following data were taken from the accounts of the town of Ridgedale after the books had been closed for the fiscal year ending June 30, 1969:

	Balances 6-30-68	*FY 1969 Changes Debits*	*FY 1969 Changes Credits*	*Balances 6-30-69*
Cash	$180,000	$ 955,000	$ 880,000	$255,000
Taxes receivable	20,000	809,000	781,000	48,000
	$200,000			$303,000
Allowance for uncollectible taxes	$ 4,000	6,000	9,000	$ 7,000
Vouchers payable	44,000	880,000	889,000	53,000
Due to working capital fund	2,000	7,000	10,000	5,000
Due to sinking fund	10,000	60,000	100,000	50,000
Reserve for encumbrances	40,000	40,000	47,000	47,000
Unappropriated surplus	100,000	20,000	61,000	141,000
	$200,000	$2,777,000	$2,777,000	$303,000

The following additional data are available:

(1) The budget for the year provided for estimated revenues of $1,000,000 and appropriations of $965,000.
(2) Expenditures totaled $942,000, including $37,000 chargeable against the Reserve for Encumbrances.

Required:
Prepare as many of the statements and schedules which should be a part of the town of Ridgedale annual report for fiscal year 1969 as you can from the data given.

(AICPA, adapted)

2. The town of Springfield had poor internal control over its cash transactions. The facts about its cash position at November 30 were as follows: The cash books showed a balance of $19,101.62, which included cash on hand. A credit of $300 on the bank's records did not appear on the books of the town. The balance per the bank statement was $15,750; and outstanding checks were No. 62 for $116.25, No. 183 for $150, No. 284 for $253.25, No. 8621 for $190.71, No. 8623 for $206.80, and No. 8632 for $145.28.

The treasurer removed all the cash on hand in excess of $3,794.41 and then prepared the following reconciliation:

Balance per books, November 30		$19,101.62
Add: Outstanding checks:		
No. 8621	$190.71	
No. 8623	206.80	
No. 8632	145.28	442.79
		$19,544.41
Deduct: Cash on hand		3,794.41
Balance per bank, November 30		$15,750.00
Deduct: Unrecorded credit		300.00
True cash, November 30		$15,450.00

a) How much did the treasurer remove, and how did he attempt to conceal his theft?

b) Taking only the information given, name two specific features of internal control which were apparently missing.

c) If the treasurer's October 31 reconciliation is known to be in order and you start your audit on December 5, for the year ended November 30, what specific auditing procedures would uncover the fraud?

(AICPA, adapted)

3. The city Hospital Board of Trustees is puzzled because the hospital has had a bad operating year for the year 1968; but still, the hospital net working capital has increased over the previous year. The net loss for the year was $84,674. As the auditor, you are asked to explain the reason for such a situation to the board of trustees.

You are acquainted with the following facts and figures:

After the books were closed, office supplies worth $9,326, which had been previously charged to expense, were inventoried. This amount was added to the general fund balance as of December 31, 1968.

During the year 1968, assets costing $62,000, on which accumulated depreciation was $18,000, were sold for $30,000, and the difference charged to the operating loss.

	December 31	
Assets	*1968*	*1967*
Cash	$ 156,561	$ 189,284
Certificates of deposit	50,000	40,000
Accounts receivable	456,380	401,930
Interest receivable	300	600
Inventories	108,597	97,975
Deferred charges	8,399	11,485
Total Current Assets	$ 780,237	$ 741,274
Fixed assets	4,594,457	4,532,610
Allowance for depreciation	(969,719)	(790,654)
Investments	15,597	2,445
Total Assets	$4,420,572	$4,485,675
Liabilities and Equities		
Accounts payable	$ 181,122	$ 171,648
Accrued expenses	2,233	1,473
Total Current Liabilities	$ 183,355	$ 173,121
Reserve for pensions	90,000	89,989
General fund balance	4,147,217	4,222,565
Total Liabilities and Equities	$4,420,572	$4,485,675

Prepare an analysis suitable for presentation to the board.

(FHFMA, adapted)

4. The clerk-treasurer of the city of Liberty is to resign on October 15, 1969, and you are assigned there on that date to audit the records and accounts as of that date. You verify the cash on hand and not deposited to be $2,362.

The previous audit, ended on December 31, 1968, showed the following condition of funds on that date:

General fund balance	$48,000	
Park fund balance	6,350	
Cemetery fund balance	1,500	
Street fund balance	150	
Police and firemen's pension fund balance	52,000	$108,000
Balance in banks, December 31	$54,570	
Outstanding checks, December 31	300	$ 54,270
Investments, pension fund, December 31		45,250
Cash on hand		8,480
		$108,000

Your audit reveals transactions entered on the records for the period as follows:

Cash received for the general fund: taxes, $85,000; licenses, $1,200; court fees, $600; miscellaneous, $200. Park fund: concessions and rents, $900. Cemetery fund: lots and service, $2,400. Street funds: gas tax, $17,500; refunds on driveway paving, $300. Pension fund: assessments, $450; interest, $1,100; investments cashed, $15,000.

Cash disbursements for the general fund: $101,000. Park fund, $8,000. Cemetery fund, $2,700. Street fund, $16,400. Pension fund, $22,000, including $15,000 for investments.

Your investigation reveals that cash was received by the clerk-treasurer and not entered or charged on the record, as follows: license fees, $650; concessions at park, $350; driveway paving by city, reimbursed by individuals, $90.

Also, it is revealed that $700 was disbursed from the park fund instead of the general fund, an error in posting. The clerk-treasurer overpaid his own salary from the general fund $150; and when his attention was called to this, he volunteered the information that he had also advanced himself $100 from the cash drawer in September, 1969.

A second check was issued to a street laborer for $80, correcting a check issued in the previous month. The original check was issued for $85 but was not canceled on the record or returned, but was cashed for the payee by the clerk-treasurer, as evidenced by the endorsement on the check.

The balance in banks at the close of business on October 15, 1969, was $35,526; pension fund investments, verified, were $40,000; and outstanding checks, verified, were $688.

Prepare a financial statement of all funds for the period, as shown by the records; and reconcile the total funds as of October 15, 1969, with bank, investments, and cash on hand.

Prepare an itemized statement of any discrepancies for which you will require the clerk-treasurer to make settlement; and outline how the settlement shall be made, so that each fund will show the proper and correct balance after adjustment and the total in all funds will agree with cash funds in the bank and investments on hand.

(Indiana State Board of Accounts, adapted)

5. You are auditing the accounts of a town clerk–treasurer. You find, in the ledger, accounts for a general fund, a street fund, and a bond fund. The original advertised budget for the street fund for the year you are examining consisted of the following three appropriations only:

Labor	$24,800
Materials	26,500
Equipment	18,000

In the appropriation and disbursement ledger accounts, you find the following record of transactions under the street fund:

LABOR ACCOUNT

Date		Description	Warrant	Appropriation	Disbursements	Appropriation Balance
Jan.	1	From advertised budget		$24,800		$24,800
	28	Street labor	115–142		$6,340	18,460
Feb.	23	Street labor	219–241		3,240	15,220
Mar.	8	Street labor	252–263		2,460	12,760
Apr.	15	Director of Internal Revenue, for withholding tax	294		1,204	11,556
June	10	Labor on municipal parking lots	371–388		7,320	4,236
July	15	Director of Internal Revenue, for withholding tax	424		732	3,504
Oct.	18	Street labor	510–523		3,200	304
Dec.	31	Director of Internal Revenue, for withholding tax	621		304	

MATERIALS ACCOUNT

Date		Description	Warrant	Appropriation	Disbursements	Appropriation Balance
Jan.	1	From advertised budget		$26,500		$26,500
	20	Asphalt mix for street	109		$10,400	16,100
Feb.	21	Repair of truck used on street	217		100	16,000
Mar.	12	Purchased used truck for street	268		3,600	12,400
Apr.	15	Auditor of State, gasoline tax distribution		4,920		17,320
May	12	Gas and oil for street trucks	301		2,490	14,830
June	6	Tile	367		4,000	10,830
July	14	Concrete for building fireplaces in park	422		800	10,030
Aug.	7	Street lights (utility bill)	451		2,280	7,750
Sept.	29	Refund received on tile purchased by warrant No. 367		100		7,850
Oct.	18	Labor on street	524–532		2,420	5,430
Nov.	2	Reimbursement for cutting weeds on private property		40		5,470
Dec.	11	To contractor for paving street	612		6,000	530
	31	Additional appropriations as advertised on this date		530		

EQUIPMENT ACCOUNT

Date		Description	Warrant	Appropriation	Disbursements	Appropriation Balance
Jan.	1	From advertised budget.........		$18,000		$18,000
	9	Grading equipment.............			$16,000	2,000
Feb.	10	Fire hydrants for street curb.....	189		1,500	500
	19	Shovels, picks, and tools........	208		420	80

Without consideration of the dates or amounts paid in relation to the purpose or of the number of times any particular item occurs, what comments and questions would you have in examining the above accounts?

(Indiana State Board of Accounts, adapted)

Appendix 1

Governmental Accounting Terminology[1]

ABATEMENT. A complete or partial cancellation of a levy imposed by a governmental unit. Abatements usually apply to tax levies, special assessments, and service charges.

ACCOUNTABILITIES. Those resources for which a person or organization (including a governmental unit) must render an accounting, although he or it may not be personally liable for them. For example, a public official is responsible for the cash and other assets under his control and must account for them. Moreover, even if a trustee has disbursed all funds confided to his care and has relieved himself of liability, he is still obligated to account for them, and the items are, therefore, accountabilities.

ACCOUNT NUMBER. See CODING and SYMBOLIZATION.

ACCOUNTING PERIOD. A period at the end of which, and for which, financial statements are prepared. See also FISCAL PERIOD.

ACCOUNTING PROCEDURE. The arrangement of all processes which discover, record, and summarize financial information to produce financial statements and reports and to provide internal control (q.v.).[2]

ACCOUNTING SYSTEM. The total structure of records and procedures which discover, record, classify, and report information on the financial position and operations of a governmental unit or any of its fund, balanced account groups, and organizational components.

ACCOUNTS RECEIVABLE. Amounts owing on open account from private persons, firms, or corporations for goods and services furnished by a governmental unit (but not including amounts due from other funds of the same governmental unit).

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[1] Most of the definitions in this list of terms are taken by permission from *Governmental Accounting, Auditing, and Financial Reporting* (Chicago, 1968), pp. 151–72, published by the National Committee on Governmental Accounting. A small number of definitions were supplied by the authors. They are indicated by an asterisk (*).

[2] The letters "q.v." signify "which see."

Note. Although taxes and assessments receivable are covered by this term, they should each be recorded and reported separately in *Taxes Receivable* and *Special Assessments Receivable* accounts. Similarly, amounts due from other funds or from other governmental units should be reported separately.

ACCRUAL BASIS. The basis of accounting under which revenues are recorded when earned and expenditures are recorded as soon as they result in liabilities for benefits received, notwithstanding that the receipt of the revenue or the payment of the expenditure may take place, in whole or in part, in another accounting period. See also ACCRUE and LEVY.

ACCRUE. To record revenues when earned and to record expenditures as soon as they result in liabilities for benefits received, notwithstanding that the receipt of the revenue or payment of the expenditure may take place, in whole or in part, in another accounting period. See also ACCRUAL BASIS, ACCRUED EXPENSES, and ACCRUED REVENUE.

ACCRUED EXPENSES. Expenses incurred during the current accounting period but which are not payable until a subsequent accounting period. See also ACCRUAL BASIS and ACCRUE.

ACCRUED INCOME. See ACCRUED REVENUE.

ACCRUED INTEREST ON INVESTMENTS PURCHASED. Interest accrued on investments between the last interest payment date and the date of purchase. The account is carried as an asset until the first interest payment date after date of purchase. At that time an entry is made debiting Cash and crediting the Accrued Interest on Investments Purchased account for the amount of interest purchased and an Interest Earnings account for the balance.

ACCRUED INTEREST PAYABLE. A liability account which represents the amount of interest accrued at the balance sheet date but which is not due until a later date.

ACCRUED REVENUE. Revenue earned during the current accounting period but which is not collected until a subsequent accounting period. See also ACCRUAL BASIS and ACCRUE.

ACCRUED TAXES PAYABLE. A liability for taxes which have accrued since the last payment date but which are not yet due. Normally, this liability will be found only in the enterprise fund of a governmental unit.

ACCRUED WAGES PAYABLE. A liability for wages earned by employees between the last payment date and the balance sheet date but which are not yet due.

ACCUMULATED DEPRECIATION. See ALLOWANCE FOR DEPRECIATION.

ACQUISITION ADJUSTMENT. Premium paid for a utility plant, over and above original cost less depreciation. Similar to goodwill in nonmonopolistic enterprises.*

ACTIVITY. A specific and distinguishable line of work performed by one or more organizational components of a governmental unit for the purpose of accomplishing a function for which the governmental unit is responsible. For example, "Food Inspection" is an activity performed in the discharge of the "Health" function. See also FUNCTION, SUBFUNCTION, and SUBACTIVITY.

ACTIVITY CLASSIFICATION. A grouping of expenditures on the basis of specific lines of work performed by organization units. For example, sewage treatment and disposal, garbage collection, garbage disposal, and street cleaning are activities performed in carrying out the function of sanitation, and the segregation of the expenditures made for each of these activities constitutes an activity classification.

ACTUARIAL BASIS. A basis used in computing the amount of contributions to be made periodically to a fund so that the total contributions plus the compounded earnings thereon will equal the required payments to be made out of the fund. The factors taken into account in arriving at the amount of these contributions include the length of time over which each contribution is to be held and the rate of return compounded on such contribution over its life. A trust fund for a public employee retirement system is an example of a fund set up on an actuarial basis.

AD VALOREM. In proportion to value. A basis for levy of taxes upon property.*

AGENCY FUND. A fund consisting of resources received and held by the governmental unit as an agent for others; for example, taxes collected and held by a municipality for a school district.

Note. Sometimes resources held by one fund of a governmental unit for other funds of the unit are handled through an agency fund. An example would be taxes held by an agency fund for redistribution among other funds. See also ALLOCATION.

ALLOCATE. To divide a lump-sum appropriation into parts which are designated for expenditure by specific organization units and/or for specific purposes, activities, or objects. See also ALLOCATION.

ALLOCATION. A part of a lump-sum appropriation which is designated for expenditure by specific organization units and/or for special purposes, activities, or objects. See also ALLOCATE.

ALLOT. To divide an appropriation into amounts which may be encumbered or expended during an allotment period. See also ALLOTMENT and ALLOTMENT PERIOD.

ALLOTMENT. A part of an appropriation which may be encumbered or expended during an allotment period. See also ALLOT and ALLOTMENT PERIOD.

ALLOTMENT PERIOD. A period of time less than one fiscal year in length during which an allotment is effective. Bimonthly and quarterly allotment periods are most common. See also ALLOT and ALLOTMENT.

ALLOTMENT LEDGER. A subsidiary ledger which contains an account for each allotment (q.v.) showing the amount allotted, expenditures, encumbrances, the net balance, and other related information. See also APPROPRIATION LEDGER.

ALLOWANCE FOR AMORTIZATION. The account in which are accumulated the amounts recorded as amortization of the intangible asset to which the allowance relates.*

ALLOWANCE FOR DEPRECIATION. The account in which are accumulated the amounts of cost of the related asset which have been charged to expense.

AMORTIZATION. (1) Gradual reduction, redemption, or liquidation of the balance of an account according to a specified schedule of times and amounts. (2) Provision for the extinguishment of a debt by means of a DEBT SERVICE FUND (q.v.).

ANNUITIES PAYABLE. A liability account which records the amount of annuities due and payable to retired employees in a public employee retirement system.

ANNUITY. A series of equal money payments made at equal intervals during a designated period of time. In governmental accounting the most frequent annuities are accumulations of debt service funds for term bonds and payments to retired employees under public employee retirement systems.

ANNUITY, AMOUNT OF. The total amount of money accumulated or paid during an annuity period from an annuity and compound interest at a designated rate.

ANNUITY PERIOD. The designated length of time during which an amount of annuity is accumulated or paid.

APPORTIONMENT. See ALLOTMENT.

APPRAISAL. (1) The act of appraising. See APPRAISE. (2) The estimated value resulting from such action.

APPRAISE. To make an estimate of value, particularly of the value of property.

Note. If the property is valued for purposes of taxation, the less inclusive term "assess" (q.v.) is substituted for the above term.

APPROPRIATION. An authorization granted by a legislative body to make expenditures and to incur obligations for specific purposes.

Note. An appropriation is usually limited in amount and as to the time when it may be expended. See, however, INDETERMINATE APPROPRIATION.

APPROPRIATION BILL, ORDINANCE, RESOLUTION, or ORDER. A bill, ordinance (q.v.), resolution (q.v.), or order (q.v.) by means of which appropriations are given legal effect. It is the method by which the expenditure side of the budget (q.v.) is enacted into law by the legisla-

tive body. In many governmental jurisdictions appropriations cannot be enacted into law by resolution but only by a bill, ordinance, or order.

APPROPRIATION EXPENDITURE. An expenditure chargeable to an appropriation.

Note. Since virtually all expenditures of governmental units are chargeable to appropriations, the term EXPENDITURES by itself is widely and properly used.

APPROPRIATION EXPENDITURE LEDGER. See APPROPRIATION LEDGER.

APPROPRIATION LEDGER. A subsidiary ledger containing an account for each appropriation. Each account usually shows the amount originally appropriated, transfers to or from the appropriation, amounts charged against the appropriation, the net balance, and other related information. If allotments are made and a separate ledger is maintained for them, each account in the appropriation ledger usually shows the amount appropriated, transfers to or from the appropriation, the amount allotted, and the unallotted balance. See also ALLOTMENT LEDGER.

ASSESS. To value property officially for the purpose of taxation.

Note. The term is also sometimes used to denote the levy of taxes, but such usage is not correct because it fails to distinguish between the valuation process and the tax levy process.

ASSESSED VALUATION. A valuation set upon real estate or other property by a government as a basis for levying taxes.

ASSESSMENT. (1) The process of making the official valuation of property for purposes of taxation. (2) The valuation placed upon property as a result of this process.

ASSESSMENT ROLL. In the case of real property, the official list containing the legal description of each parcel of property and its assessed valuation. The name and address of the last known owner are also usually shown.

In the case of personal property, the assessment roll is the official list containing the name and address of the owner, a description of the personal property, and its assessed value.

ASSETS. Property owned by a governmental unit which has a monetary value.

Note. Conventionally, debit balances subject to final disposition, such as deferred charges and prepaid expenses, are classified as assets at closing periods, even though the stated values may not represent the realizable values.

AUDIT. The examination of documents, records, reports, systems of internal control, accounting and financial procedures, and other evidence for one or more of the following purposes:

a) To ascertain whether the statements prepared from the accounts

present fairly the financial position and the results of financial operations of the constituent funds and balanced account groups of the governmental unit in accordance with generally accepted accounting principles *applicable to governmental units* and on a basis consistent with that of the preceding year.

b) To determine the propriety, legality, and mathematical accuracy of a governmental unit's financial transactions.

c) To ascertain whether all financial transactions have been properly recorded.

d) To ascertain the stewardship of public officials who handle and are responsible for the financial resources of a governmental unit.

AUDIT PROGRAM. A detailed outline of work to be done and the procedure to be followed in any given audit.

AUDIT REPORT. The report prepared by an auditor covering the audit or investigation made by him. As a rule, the report should include: (*a*) a statement of the scope of the audit; (*b*) explanatory comments (if any) concerning exceptions by the auditor as to application of generally accepted auditing standards; (*c*) opinions; (*d*) explanatory comments (if any) concerning verification procedures; (*e*) financial statements and schedules; and (*f*) sometimes statistical tables, supplementary comments, and recommendations. The auditor's signature follows item (*c*) or (*d*).

AUDITED CLAIMS PAYABLE. Claims which have been processed and are eligible for payment.*

AUDITED VOUCHER. A voucher which has been examined and approved for payment.

AUDITOR'S OPINION. A statement signed by an auditor in which he states that he has examined the financial statements in accordance with generally accepted auditing standards (with exceptions, if any) and in which he expresses his opinion on the financial condition and results of operations of some or all of the constituent funds and balanced account groups of the governmental unit, as appropriate.

AUTHORITY. A governmental unit or public agency created to perform a single function or a restricted group of related activities. Usually such units are financed from service charges, fees, and tolls, but in some instances they also have taxing powers. An authority may be completely independent of other governmental units, or in some cases it may be partially dependent upon other governments for its creation, its financing, or the exercise of certain powers.

AUTHORITY BONDS. Bonds payable from the revenues of a specific authority (q.v.). Since such authorities usually have no revenue other than charges for services, their bonds are ordinarily revenue bonds (q.v.).

AUTOMATIC DATA PROCESSING (ADP). See ELECTRONIC DATA PROCESSING (EDP).

BALANCE SHEET. A statement which discloses the assets, liabilities, reserves, and equities of a fund or governmental unit at a specified date, properly classified to exhibit financial position of the fund or unit at that date.

Note. If a single balance sheet is prepared for several funds, it must be in columnar or sectional form so as to exhibit the accounts of each fund and balanced account group individually.

BETTERMENT. An addition made to, or change made in, a fixed asset which is expected to prolong its life or to increase its efficiency over and above that arising from maintenance (q.v.) and the cost of which is therefore added to the book value of the asset.

Note. The term is sometimes applied to sidewalks, sewers, and highways, but these should preferably be designated as "improvements" (q.v.).

BOND. A written promise to pay a specified sum of money, called the face value or principal amount, at a specified date or dates in the future, called the maturity date(s), together with periodic interest at a specified rate.

Note. The difference between a note and a bond is that the latter runs for a longer period of time and requires greater legal formality.

BOND ANTICIPATION NOTES. Short-term interest-bearing notes issued by a governmental unit in anticipation of bonds to be issued at a later date. The notes are retired from proceeds of the bond issue to which they are related. See also INTERIM BORROWING.

BOND DISCOUNT. The excess of the face value of a bond over the price for which it is acquired or sold.

Note. The price does not include accrued interest at the date of acquisition or sale.

BOND FUND. A fund formerly used to account for the proceeds of general obligation bond issues. Such proceeds are now accounted for in a CAPITAL PROJECTS FUND (q.v.).

BOND INDENTURE. The contract between a corporation issuing bonds and the trustees or other body representing prospective and actual holders of the bonds.*

BOND ORDINANCE OR RESOLUTION. An ordinance (q.v.) or resolution (q.v.) authorizing a bond issue.

BOND PREMIUM. The excess of the price at which a bond is acquired or sold over its face value.

Note. The price does not include accrued interest at the date of acquisition or sale.

BONDED DEBT. That portion of indebtedness represented by outstanding bonds. See GROSS BONDED DEBT and NET BONDED DEBT.

BONDED INDEBTEDNESS. See BONDED DEBT.

BONDS AUTHORIZED AND UNISSUED. Bonds which have been legally authorized but not issued and which can be issued and sold without further authorization.

Note. This term must not be confused with the term "margin of borrowing power" or "legal debt margin," either one of which represents the difference between the legal debt limit (q.v.) of a governmental unit and the debt outstanding against it.

BOOKS OF ORIGINAL ENTRY. The record in which the various transactions are formally recorded for the first time, such as the cash journal, check register, or general journal. Where mechanized bookkeeping methods are used, it may happen that one transaction is recorded simultaneously in several records, one of which may be regarded as the book of original entry.

Note. Memorandum books, check stubs, files of duplicate sales invoices, etc., whereon first or prior business notations may have been made, are not books of original entry in the accepted meaning of the term, unless they are also used as the media for direct posting to the ledgers.

BOOK VALUE. Value (q.v.) as shown by books of account.

Note. In the case of assets which are subject to reduction by valuation allowances, "book value" refers to cost or stated value less the appropriate allowance. Sometimes a distinction is made between "gross book value" and "net book value," the former designating value before deduction of related allowances and the latter after their deduction. In the absence of any modifier, however, the term "book value" is understood to be synonymous with "net book value."

BUDGET. A plan of financial operation embodying an estimate of proposed expenditures for a given period and the proposed means of financing them. Used without any modifier, the term usually indicates a financial plan for a single fiscal year.

Note. The term "budget" is used in two senses in practice. Sometimes it designates the financial plan presented to the appropriating body for adoption and sometimes the plan finally approved by that body. It is usually necessary to specify whether the budget under consideration is preliminary and tentative or whether it has been approved by the appropriating body. See also CURRENT BUDGET, CAPITAL BUDGET, CAPITAL PROGRAM, and LONG-TERM BUDGET.

BUDGET DOCUMENT. The instrument used by the budget-making authority to present a comprehensive financial program to the appropriating body. The budget document usually consists of three parts. The first part contains a message from the budget-making authority, together with a summary of the proposed expenditures and the means of financing them. The second consists of schedules supporting the summary. These schedules show in detail the information as to past years' actual revenues, expenditures, and other data used in making the estimates.

The third part is composed of drafts of the appropriation, revenue, and borrowing measures necessary to put the budget into effect.

BUDGET MESSAGE. A general discussion of the proposed budget as presented in writing by the budget-making authority to the legislative body. The budget message should contain an explanation of the principal budget items, an outline of the governmental unit's experience during the past period and its financial status at the time of the message, and recommendations regarding the financial policy for the coming period.

BUDGETARY ACCOUNTS. Those accounts which reflect budgetary operations and condition, such as estimated revenues, appropriations, and encumbrances, as distinguished from proprietary accounts. See also PROPRIETARY ACCOUNTS.

BUDGETARY CONTROL. The control or management of a governmental unit or enterprise in accordance with an approved budget for the purpose of keeping expenditures within the limitations of available appropriations and available revenues.

BUILDINGS. A fixed asset account which reflects the acquisition value of permanent structures used to house persons and property owned by a governmental unit. If buildings are purchased or constructed, this account includes the purchase or contract price of all permanent buildings and fixtures attached to and forming a permanent part of such buildings. If buildings are acquired by gift, the account reflects their appraised value at time of acquisition.

CALLABLE BOND. A type of bond which permits the issuer to pay the obligation before the stated maturity date by giving notice of redemption in a manner specified in the bond contract. Synonym: OPTIONAL BOND.

CAPITAL ASSETS. See FIXED ASSETS.

CAPITAL BUDGET. A plan of proposed capital outlays and the means of financing them for the current fiscal period. It is usually a part of the current budget. If a Capital Program is in operation, it will be the first year thereof. A Capital Program is sometimes referred to as a Capital Budget. See also CAPITAL PROGRAM.

CAPITAL EXPENDITURES. See CAPITAL OUTLAYS.

CAPITAL IMPROVEMENT PROGRAM. See CAPITAL PROGRAM.

CAPITAL OUTLAYS. Expenditures which result in the acquisition of or addition to fixed assets.

CAPITAL PROGRAM. A plan for capital expenditures to be incurred each year over a fixed period of years to meet capital needs arising from the long-term work program or otherwise. It sets forth each project or other contemplated expenditure in which the government is to have a part and specifies the full resources estimated to be available to finance the projected expenditures.

CAPITAL PROJECTS FUND. A fund created to account for all resources used for the acquisition of designated fixed assets by a governmental unit except those financed by special assessment and enterprise funds. See also BOND FUND.

CAPITAL RESOURCES. Resources of a fixed or permanent character, such as land and buildings, which cannot ordinarily be used to meet current expenditures.

CASH. Currency, coin, checks, postal and express money orders, and bankers' drafts on hand or on deposit with an official or agent designated as custodian of cash and bank deposits.

Note. All cash must be accounted for as a part of the fund to which it belongs. Any restrictions or limitations as to its availability must be indicated in the records and statements. It is not necessary, however, to have a separate bank account for each fund unless required by law.

CASH AUDIT. An audit of the cash transactions for a stated period for the purpose of determining that all cash received has been recorded, that all disbursements have been properly authorized and vouchered, and that the balance of cash is either on hand or on deposit. A cash audit can range from a complete inquiry into all cash transactions to one involving only some of them.

CASH BASIS. The basis of accounting under which revenues are recorded when received in cash and expenditures are recorded when paid.

CASH DISCOUNT. An allowance received or given if payment is completed within a stated period of time.

CERTIFIED PUBLIC ACCOUNTANT. An accountant to whom a state has granted a certificate showing that he has met prescribed educational, experience, and examination requirements designed to insure competence in the practice of public accounting. The accountant holding such a certificate is permitted to use the designation Certified Public Accountant, commonly abbreviated to CPA.

CHARACTER. A basis for distinguishing expenditures according to the periods they are presumed to benefit. See also CHARACTER CLASSIFICATION.

CHARACTER CLASSIFICATION. A grouping of expenditures on the basis of the time periods they are presumed to benefit. The three groupings are: (1) expenses, presumed to benefit the current fiscal period (but see note following EXPENSES); (2) provisions for retirement of debt, presumed to benefit prior fiscal periods primarily but also present and future periods; and (3) capital outlays, presumed to benefit the current and future fiscal periods. See also ACTIVITY, ACTIVITY CLASSIFICATION, FUNCTION, FUNCTIONAL CLASSIFICATION, OBJECT, OBJECT CLASSIFICATION, and EXPENSES.

CHARTERED ACCOUNTANT. A *member of an Institute of Chartered Accountants in the British Empire.* Admission to such institutes is dependent upon serving a period of apprenticeship and passing an entrance examination.

CHECK. A bill of exchange drawn on a bank and payable on demand; a written order on a bank to pay on demand a specified sum of money to a named person, to his order, or to bearer, out of money on deposit to the credit of the maker.

Note. A check differs from a warrant in that the latter is not necessarily payable on demand and may not be negotiable. It differs from a voucher in that the latter is not an order to pay.

CLEARING ACCOUNT. An account used to accumulate total charges or credits for the purpose of distributing them later among the accounts to which they are allocable or for the purpose of transferring the net differences to the proper account.

CODE. See CODING.

CODING. A system of numbering or otherwise designating accounts, entries, invoices, vouchers, etc., in such a manner that the symbol used reveals quickly certain required information. To illustrate the coding of accounts, the number "200" may be assigned to expenditures made by the Department of Finance and the letter "A" may be used to designate expenditures for personal services. Expenditures for personal services in the Department of Finance would then be designated, for posting and other purposes, by the code "200–A." Other examples are the numbering of monthly recurring journal entries so that the number indicates the month and the nature of the entry and the numbering of invoices or vouchers so that the number reveals the date of entry. See also SYMBOLIZATION.

COLLECTOR'S ROLL. See TAX ROLL.

COMBINATION BOND. A bond issued by a governmental unit which is payable from the revenues of a governmental enterprise but which is also backed by the full faith and credit of the governmental unit.

COMBINED BALANCE SHEET. A single balance sheet which displays the individual balance sheets of each class of funds and the balanced account groups of a governmental unit in separate, adjacent columns.

Note. There are no interfund eliminations or consolidations in a combined balance sheet for a governmental unit.

COMMITMENTS. See ENCUMBRANCES.

CONSCIENCE MONEY. Money received by governmental units in payment of previously undisclosed debts, usually based on embezzlement, tax evasion or theft.*

CONSTRUCTION WORK IN PROGRESS. The cost of construction work undertaken but not yet completed.

CONTINGENT FUND. Assets or other resources set aside to provide for unforeseen expenditures or for anticipated expenditures of uncertain amount.

Note. The term should not be used to describe a reserve for contin-

gencies. The latter is set aside out of the fund balance of a fund but does not constitute a separate fund. Similarly, an appropriation for contingencies is not a contingent fund, since an appropriation is not a fund.

CONTINGENT LIABILITIES. Items which may become liabilities as a result of conditions undetermined at a given date, such as guarantees, pending law suits, judgments under appeal, unsettled disputed claims, unfilled purchase orders, and uncompleted contracts.

Note. All contingent liabilities should be shown on the face of the balance sheet or in a footnote thereto.

CONTINUING APPROPRIATION. An appropriation which, once established, is automatically renewed without further legislative action, period after period, until altered or revoked.

Note. The term should not be confused with INDETERMINATE APPROPRIATION (q.v.).

CONTINUOUS AUDIT. An audit in which the detailed work is performed either continuously or at short, regular intervals throughout the fiscal period. Such continuous work leads up to the completion of the audit upon the closing of the accounting records at the end of the fiscal period.

A continuous audit differs from a periodic audit, even though the detailed work may be performed on a monthly or other short-term basis, in that no report is made in the case of the former, except of irregularities detected and adjustments found to be necessary, until the end of a complete fiscal period. Moreover, the continuous audit differs from the periodic audit in that the certification of balance sheet and operating statement figures of the former may be deferred until the end of the fiscal period.

CONTROL ACCOUNT. An account in the general ledger in which are recorded the aggregate of debit and credit postings to a number of identical or related accounts called subsidiary accounts. For example, the Taxes Receivable account is a control account supported by the aggregate of individual balances in individual property taxpayers' accounts. See also GENERAL LEDGER and SUBSIDIARY ACCOUNT.

COST. The amount of money or money's worth exchanged for property or services.

Note. Costs may be incurred even before money is paid; that is, as soon as liability is incurred. Ultimately, however, money or money's worth must be given in exchange. Again, the cost of some property or service may, in turn, become a part of the cost of another property or service. For example, the cost of part or all of the materials purchased at a certain time will be reflected in the cost of articles made from such materials or in the cost of those services in the rendering of which the materials were used.

COST ACCOUNTING. That method of accounting which provides for the

assembling and recording of all the elements of cost incurred to accomplish a purpose, to carry on an activity or operation, or to complete a unit of work or a specific job.

COST LEDGER. A subsidiary record wherein each project, job, production center, process, operation, product, or service is given a separate account to which all items entering into its cost are posted in the required detail. Such accounts should be so arranged and kept that the results shown in them may be reconciled with and verified by a control account or accounts in the general books.

COST, ORIGINAL. See ORIGINAL COST.

COST RECORDS. All ledgers, supporting records, schedules, reports, invoices, vouchers, and other records and documents reflecting the cost of projects, jobs, production centers, processes, operations, products, or services, or the cost of any of the component parts thereof.

COST UNIT. A term used in cost accounting to designate the unit of product or service whose cost is computed. These units are selected for the purpose of comparing the actual cost with a standard cost (q.v.) or with actual costs of units produced under different circumstances or at different places and times. See also UNIT COST and WORK UNIT.

COUPON RATE. The interest rate specified on interest coupons attached to a bond. The term is synonymous with nominal interest rate (q.v.).

CURRENT. A term which, applied to budgeting and accounting, designates the operations of the present fiscal period as opposed to past or future periods.

CURRENT ASSETS. Those assets which are available or can be made readily available to meet the cost of operations or to pay current liabilities. Some examples are cash, temporary investments, and taxes receivable which will be collected within about a year from the balance sheet date.

CURRENT BUDGET. The annual budget prepared for and effective during the present fiscal year; or, in the case of some state governments, the budget for the present biennium.

CURRENT EXPENSES. See EXPENSES.

CURRENT FUND. See GENERAL FUND.

CURRENT FUNDS. Funds the resources of which are expended for operating purposes during the current fiscal period. In its usual application in plural form, it refers to General, Special Revenue, Debt Service, and Enterprise Funds of a governmental unit. In the singular form, the current fund is synonymous with the general fund. See also GENERAL FUND.

CURRENT LIABILITIES. Liabilities which are payable within a relatively short period of time, usually no longer than a year. See also FLOATING DEBT.

CURRENT RESOURCES. Resources (q.v.) to which recourse can be had to

meet current obligations and expenditures. Examples are current assets, estimated revenues of a particular period not yet realized, transfers from other funds authorized but not received, and in the case of certain funds, bonds authorized and unissued.

CURRENT REVENUE. Revenues of a governmental unit which are available to meet expenditures of the current fiscal year. See REVENUE.

CURRENT SPECIAL ASSESSMENTS. (1) Special assessments levied and becoming due during the current fiscal period, from the date special assessment rolls are approved by the proper authority to the date on which a penalty for nonpayment is attached. (2) Special assessments levied in a prior fiscal period but becoming due in the current fiscal period, from the time they become due to the date on which a penalty for nonpayment is attached.

CURRENT TAXES. (1) Taxes levied and becoming due during the current fiscal period, from the time the amount of the tax levy is first established to the date on which a penalty for nonpayment is attached. (2) Taxes levied in the preceding fiscal period but becoming due in the current fiscal period, from the time they become due until a penalty for nonpayment is attached.

CURRENT YEAR'S TAX LEVY. Taxes levied for the current fiscal period.

DATA PROCESSING. (1) The preparation and handling of information and data from source media through prescribed procedures to obtain such end results as classification, problem solution, summarization, and reports. (2) Preparation and handling of financial information wholly or partially by mechanical or electronic means. See also ELECTRONIC DATA PROCESSING (EDP).

DEBT. An obligation resulting from the borrowing of money or from the purchase of goods and services. Debts of governmental units include bonds, time warrants, notes, and floating debt. See also BOND, NOTES PAYABLE, TIME WARRANT, FLOATING DEBT, LONG-TERM DEBT, and GENERAL LONG-TERM DEBT.

DEBT LIMIT. The maximum amount of gross or net debt which is legally permitted.

DEBT SERVICE FUND. A fund established to finance and account for the payment of interest and principal on all general obligation debt, serial and term, other than that payable exclusively from special assessments and revenue debt issued for and serviced by a governmental enterprise. Formerly called a SINKING FUND.

DEBT SERVICE FUND REQUIREMENTS. The amounts of revenue which must be provided for a debt service fund so that all principal and interest payments can be made in full on schedule.

DEBT SERVICE REQUIREMENT. The amount of money required to pay the interest on outstanding debt, serial maturities of principal for serial

bonds, and required contributions to a debt service fund for term bonds.

DEFERRED CHARGES. Expenditures which are not chargeable to the fiscal period in which made but are carried on the asset side of the balance sheet pending amortization or other disposition. An example is Discount on Bonds Issued.

Note. Deferred charges differ from prepaid expenses in that they usually extend over a long period of time (more than five years) and are not regularly recurring costs of operation. See also PREPAID EXPENSES.

DEFERRED CREDITS. Credit balances or items which will be spread over following accounting periods either as additions to revenue or as reductions of expenses. Examples are taxes collected in advance and premiums on bonds issued.

DEFERRED INCOME. See DEFERRED CREDITS.

DEFERRED SERIAL BONDS. Serial bonds (q.v.) in which the first installment does not fall due for two or more years from the date of issue.

DEFERRED SPECIAL ASSESSMENTS. Special assessments which have been levied but which are not yet due.

DEFICIENCY. A general term indicating the amount by which anything falls short of some requirement or expectation. The term should not be used without qualification.

DEFICIT. (1) The excess of the liabilities and reserves of a fund over its assets. (2) The excess of expenditures over revenues during an accounting period; or, in the case of Enterprise and Intragovernmental Service Funds, the excess of expense over income during an accounting period.

DELINQUENT SPECIAL ASSESSMENTS. Special assessments remaining unpaid on and after the date on which a penalty for nonpayment is attached.

DELINQUENT TAXES. Taxes remaining unpaid on and after the date on which a penalty for nonpayment is attached. Even though the penalty may be subsequently waived and a portion of the taxes may be abated or canceled, the unpaid balances continue to be delinquent taxes until abated, canceled, paid, or converted into tax liens.

Note. The term is sometimes limited to taxes levied for the fiscal period or periods preceding the current one, but such usage is not entirely correct. See also CURRENT TAXES, CURRENT YEAR'S TAX LEVY, and PRIOR YEARS' TAX LEVIES.

DEPOSIT. (1) Money placed with a banking or other institution or with a person either as a general deposit subject to check or as a special deposit made for some specified purpose. (2) Securities lodged with a banking or other institution or with a person for some particular purpose. (3) Sums deposited by customers for electric meters, water meters, etc.; and by contractors and others to accompany and guarantee their bids.

DEPOSIT WARRANT. A financial document prepared by a designated ac-

counting or finance officer authorizing the treasurer of a governmental unit to accept for deposit sums of money collected by various departments and agencies of the governmental unit.

DEPRECIATION. (1) Expiration in the service life of fixed assets, other than wasting assets (q.v.), attributable to wear and tear, deterioration, action of the physical elements, inadequacy, and obsolescence. (2) The portion of the cost of a fixed asset, other than a wasting asset, which is charged as an expense during a particular period.

Note. In accounting for depreciation, the cost of a fixed asset, less any salvage value, is prorated over the estimated service life of such an asset, and each period is charged with a portion of such cost. Through this process, the entire cost of the asset is ultimately charged off as an expense.

DETAILED AUDIT. An audit in which an examination is made of the system of internal control and of the details of all transactions and books of account, including subsidiary records and supporting documents, as to legality, mathematical accuracy, complete accountability, and application of generally accepted accounting principles for governmental units.

DIRECT CHARGES. See DIRECT EXPENSES.

DIRECT DEBT. The debt which a governmental unit has incurred in its own name or assumed through the annexation of territory or consolidation with another governmental unit. See also OVERLAPPING DEBT.

DIRECT EXPENSES. Those expenses which can be charged directly as a part of the cost of a product or service, or of a department or operating unit, as distinguished from overhead and other indirect costs which must be prorated among several products or services, departments, or operating units.

DIRECT LABOR. The cost of labor directly expended in the production of specific goods or rendition of specific services.

DIRECT MATERIALS. The cost of materials which become an integral part of a specific manufactured product or which are consumed in the performance of a specific service.

DISBURSEMENTS. Payments in cash.

DOUBLE ENTRY. A system of bookkeeping which requires, for every entry made to the debit side of an account or accounts, an entry for a corresponding amount or amounts to the credit side of another account or accounts.

Note. Double entry bookkeeping involves the maintaining of a balance between assets on the one hand and liabilities, reserves, and fund equities on the other. To maintain this balance, it is necessary that entries for equal amounts be made in each group. Moreover, if a transaction affects only one group of accounts, such as assets, the

amount or amounts debited to an account or accounts within the group must be offset by a credit to another account or accounts within the group for a corresponding amount or amounts. For example, a debit to Cash would be offset by a credit for a corresponding amount to Taxes Receivable or some other asset.

DUE TO FISCAL AGENT. Amounts due to fiscal agents, such as commercial banks, for servicing a governmental unit's maturing interest and principal payments on indebtedness.

EARNINGS. See INCOME and REVENUE.

EFFECTIVE INTEREST RATE. The rate of earning on a bond investment based on the actual price paid for the bond, the coupon rate, the maturity date, and the length of time between interest dates, in contrast with the nominal interest rate (q.v.).

ELECTRONIC DATA PROCESSING (EDP). Data processing by means of high-speed electronic equipment. See also DATA PROCESSING.

ENCUMBRANCES. Obligations in the form of purchase orders, contracts, or salary commitments which are chargeable to an appropriation and for which a part of the appropriation is reserved. They cease to be encumbrances when paid or when the actual liability is set up.

ENDOWMENT FUND. A fund whose principal must be maintained inviolate but whose income may be expended. An endowment fund is accounted for as a trust fund.

ENTERPRISE DEBT. Debt which is to be retired primarily from the earnings of publicly owned and operated enterprises. See also REVENUE BONDS.

ENTERPRISE FUND. A fund established to finance and account for the acquisition, operation, and maintenance of governmental facilities and services which are entirely or predominantly self-supporting by user charges. Examples of enterprise funds are those for water, gas, and electric utilities; swimming pools; airports; parking garages; and transit systems.

ENTRY. (1) The record of a financial transaction in its appropriate book of account. (2) The act of recording a transaction in the books of account.

EQUIPMENT. Tangible property of a more or less permanent nature (other than land, buildings, or improvements other than buildings) which is useful in carrying on operations. Examples are machinery, tools, trucks, cars, furniture, and furnishings.

ESTIMATED REVENUE. For revenue accounts kept on an accrual basis (q.v.), this term designates the amount of revenue estimated to accrue during a given period regardless of whether or not it is all to be collected during the period. For revenue accounts kept on a cash basis (q.v.) the term designates the amount of revenue estimated to be

collected during a given period. Under the modified accrual basis (q.v.) recommended for some funds by the Committee, estimated revenues for many governmental revenues will include both cash and accrual basis revenues. See also REVENUE, REVENUE RECEIPTS, CASH BASIS, ACCRUAL BASIS, and MODIFIED ACCRUAL BASIS.

ESTIMATED REVENUE RECEIPTS. A term used synonymously with estimated revenue (q.v.) by some governmental units reporting their revenues on a cash basis. See also REVENUE and REVENUE RECEIPTS.

ESTIMATED UNCOLLECTIBLE ACCOUNTS RECEIVABLE (Credit). That portion of accounts receivable which it is estimated will never be collected. The account is deducted from the Accounts Receivable account on the balance sheet in order to arrive at the net amount of accounts receivable.

ESTIMATED UNCOLLECTIBLE CURRENT TAXES (Credit). A provision out of tax revenues for that portion of current taxes receivable which it is estimated will never be collected. The amount is shown on the balance sheet as a deduction from the Taxes Receivable—Current account in order to arrive at the net taxes receivable.

ESTIMATED UNCOLLECTIBLE DELINQUENT TAXES (Credit). That portion of delinquent taxes receivable which it is estimated will never be collected. The account is shown on the balance sheet as a deduction from the Taxes Receivable—Delinquent account to arrive at the net delinquent taxes receivable.

ESTIMATED UNCOLLECTIBLE INTEREST AND PENALTIES ON TAXES (Credit). That portion of interest and penalties receivable which it is estimated will never be collected. The account is shown as a deduction from the Interest and Penalties Receivable account on the balance sheet in order to arrive at the net interest and penalties receivable.

ESTIMATED UNCOLLECTIBLE TAX LIENS. That portion of tax liens receivable which it is estimated will never be collected. The account is shown as a deduction from the Tax Liens Receivable account on the balance sheet in order to arrive at the net amount of tax liens receivable.

EXHIBIT. (1) A balance sheet or other principal financial statement. (2) Any statement or other document that accompanies or is a part of a financial or audit report. See also SCHEDULES and STATEMENTS.

EXPENDABLE FUND. A fund whose resources, including both principal and earnings, may be expended. See also NONEXPENDABLE FUND.

EXPENDITURE DISBURSEMENTS. A term sometimes used by governmental units operating on a cash basis (q.v.) as a synonym for expenditures (q.v.). It is not recommended terminology.

EXPENDITURES. Where the accounts are kept on the accrual basis (q.v.) or the modified accrual basis (q.v.), this term designates the cost of goods delivered or services rendered, whether paid or unpaid, including ex-

penses, provision for debt retirement not reported as a liability of the fund from which retired, and capital outlays. Where the accounts are kept on the cash basis (q.v.), the term designates only actual cash disbursements for these purposes.

Note. Encumbrances are not expenditures.

EXPENSES. Charges incurred, whether paid or unpaid, for operation, maintenance, interest, and other charges which are presumed to benefit the current fiscal period.

Note. Legal provisions sometimes make it necessary to treat as expenses some charges whose benefits extend over future periods. For example, purchases of materials and supplies which may be used over a period of more than one year and payments for insurance which is to be in force for a period longer than one year frequently must be charged in their entirety to the appropriation of the year in which they are incurred and classified as expenses of that year, even though their benefits extend also to other periods.

FACE VALUE. As applied to securities, this term designates the amount of liability stated in the security document.

FIDELITY BOND. A written promise to indemnify against losses from theft, defalcation, and misappropriation of public funds by government officers and employees. See also SURETY BOND.

FISCAL PERIOD. Any period at the end of which a governmental unit determines its financial position and the results of its operations.

FISCAL YEAR. A twelve-month period of time to which the annual budget applies and at the end of which a governmental unit determines its financial position and the results of its operations.

FIXED ASSETS. Assets of a long-term character which are intended to continue to be held or used, such as land, buildings, machinery, furniture, and other equipment.

Note. The term does not indicate the immobility of an asset, which is the distinctive character of "fixture" (q.v.).

FIXED CHARGES. Expenses (q.v.) the amount of which is more or less fixed. Examples are interest, insurance, and contributions to pension funds.

FIXED LIABILITIES. See BONDED DEBT.

FIXTURES. Attachments to buildings which are not intended to be removed and which cannot be removed without damage to the latter.

Note. Those fixtures with a useful life presumed to be as long as that of the building itself are considered a part of such a building; all others are classed as equipment.

FLOATING DEBT. Liabilities other than bonded debt and time warrants which are payable on demand or at an early date. Examples are accounts payable, notes, and bank loans. See also CURRENT LIABILITIES.

FORCE ACCOUNT METHOD. A method employed in the construction and/or maintenance of fixed assets whereby a governmental unit's own personnel are used instead of an outside contractor.

Note. This method also calls for the purchase of materials by the governmental unit and the possible use of its own equipment, but the distinguishing characteristic of the force account method is the use of the unit's own personnel.

FORFEITURE. The automatic loss of cash or other property as a punishment for not complying with legal provisions and as compensation for the resulting damages or losses.

Note. The term should not be confused with confiscation. The latter term designates the actual taking over of the forfeited property by the government. Even after property has been forfeited, it cannot be said to be confiscated until the governmental unit claims it.

FRANCHISE. A special privilege granted by a government permitting the continuing use of public property, such as city streets, and usually involving the elements of monopoly and regulation.

FULL FAITH AND CREDIT. A pledge of the general taxing power for the payment of debt obligations.

Note. Bonds carrying such pledges are usually referred to as general obligation bonds or full faith and credit bonds.

FUNCTION. A group of related activities aimed at accomplishing a major service or regulatory program for which a governmental unit is responsible. For example, public health is a function. See also SUBFUNCTION, ACTIVITY, CHARACTER, and OBJECT.

FUNCTIONAL CLASSIFICATION. A grouping of expenditures on the basis of the principal purposes for which they are made. Examples are public safety, public health, public welfare, etc. See also ACTIVITY, CHARACTER, and OBJECT CLASSIFICATION.

FUND. An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. See GENERAL FIXED ASSETS GROUP OF ACCOUNTS and GENERAL LONG-TERM DEBT AND INTEREST GROUP OF ACCOUNTS.

FUND ACCOUNTS. All accounts necessary to set forth the financial operations and financial position of a fund.

FUND BALANCE. The excess of the assets of a fund over its liabilities and reserves except in the case of funds subject to budgetary accounting where, prior to the end of a fiscal period, it represents the excess of the fund's assets and estimated revenues for the period over its liabilities, reserves, and appropriations for the period.

FUND BALANCE RECEIPTS. Receipts which increase the fund balance of a

fund but which are not properly included in current revenues. Examples are taxes and accounts receivable which had previously been written off as uncollectible.

FUND BALANCE SHEET. A balance sheet for a single fund. See FUND and BALANCE SHEET.

FUNDED DEBT. Same as BONDED DEBT, which is the preferred term.

FUNDED DEFICIT. A deficit eliminated through the sale of bonds issued for that purpose. See also FUNDING BONDS.

FUND GROUP. A group of funds which are similar in purpose and character. For example, several special revenue funds constitute a fund group. See also RELATED FUNDS.

FUNDING. The conversion of floating debt or time warrants into bonded debt (q.v.).

FUNDING BONDS. Bonds issued to retire outstanding floating debt and to eliminate deficits.

FUND SURPLUS. See FUND BALANCE.

GENERAL AUDIT. An audit, made at the close of a normal accounting period, which covers all of the funds and balanced account groups of a governmental unit. Such audits may involve some detailed verifications, as determined by the professional judgment of the auditor, but usually they are based on appropriate tests and checks. See also SPECIAL AUDIT.

GENERAL FIXED ASSETS. Those fixed assets of a governmental unit which are not accounted for in an Enterprise, Trust, or Intragovernmental Service Fund.

GENERAL FIXED ASSETS GROUP OF ACCOUNTS. A self-balancing group of accounts set up to account for the general fixed assets of a governmental unit. See GENERAL FIXED ASSETS.

GENERAL FUND. A fund used to account for all transactions of a governmental unit which are not accounted for in another fund.

Note. The General Fund is used to account for the ordinary operations of a governmental unit which are financed from taxes and other general revenues.

GENERAL JOURNAL. A journal (q.v.) in which are entered all entries not recorded in special journals.

GENERAL LEDGER. A book, file, or other device which contains the accounts needed to reflect, in summary and in detail, the financial position and the results of financial operations of a governmental unit.

Note. In double entry bookkeeping (q.v.), the debits and credits in the general ledger are equal, and therefore the debit balances equal the credit balances. See also CONTROL ACCOUNT, SUBSIDIARY ACCOUNT, and SUBSIDIARY LEDGER.

GENERAL LONG-TERM DEBT. Long-term debt legally payable from gen-

eral revenues and backed by the full faith and credit of a governmental unit. See LONG-TERM DEBT.

GENERAL LONG-TERM DEBT GROUP OF ACCOUNTS. A self-balancing group of accounts set up to account for the general long-term debt of a governmental unit. See GENERAL LONG-TERM DEBT.

GENERAL LONG-TERM DEBT AND INTEREST GROUP OF ACCOUNTS. Same as GENERAL LONG-TERM DEBT GROUP but with addition of information on related interest obligations.*

GENERAL OBLIGATION BONDS. Bonds for whose payment the full faith and credit of the issuing body are pledged. More commonly, but not necessarily, general obligation bonds are considered to be those payable from taxes and other general revenues. See also FULL FAITH AND CREDIT.

GENERAL OBLIGATION SPECIAL ASSESSMENT BONDS. See SPECIAL ASSESSMENT BONDS.

GENERAL REVENUE. The revenues (q.v.) of a governmental unit other than those derived from and retained in an enterprise.

Note. If a portion of the net income in an enterprise fund is contributed to another nonenterprise fund, such as the General Fund, the amounts transferred constitute general revenue of the governmental unit.

GOVERNMENTAL ACCOUNTING. The composite activity of analyzing, recording, summarizing, reporting, and interpreting the financial transactions of governmental units and agencies.

GOVERNMENTAL UNIT'S SHARE OF ASSESSMENT IMPROVEMENT COSTS. An account sometimes used in a Special Assessment Fund to designate the amount receivable from the governmental unit as its share of the cost of a special assessment improvement project. Usually shortened to GOVERNMENTAL UNIT'S SHARE OF COST.

GRANT. A contribution by one governmental unit to another unit. The contribution is usually made to aid in the support of a specified function (for example, education), but it is sometimes also for general purposes.

GRANTS-IN-AID. See GRANT.

GROSS BONDED DEBT. The total amount of direct debt of a governmental unit represented by outstanding bonds before deduction of any assets available and earmarked for their retirement. See also DIRECT DEBT.

GROSS REVENUE. See REVENUE.

IMPREST SYSTEM. A system for handling minor disbursements whereby a fixed amount of money, designated as petty cash, is set aside for this purpose. Disbursements are made from time to time as needed, a receipt or petty cash voucher being completed in each case. At certain intervals, or when the petty cash is completely expended, a report with

substantiating petty cash vouchers is prepared and the petty cash fund is replenished for the amount of disbursements by a check drawn on the appropriate fund bank account. The total of petty cash on hand plus the amount of signed receipts or petty cash vouchers at any one time must equal the total amount of petty cash authorized. See also PETTY CASH.

IMPROVEMENTS. Buildings, other structures, and other attachments or annexations to land which are intended to remain so attached or annexed, such as sidewalks, trees, drives, tunnels, drains, and sewers.

Note. Sidewalks, curbing, sewers, and highways are sometimes referred to as "betterments," but the term "improvements" is to be preferred.

IMPROVEMENTS OTHER THAN BUILDINGS. A fixed asset account which reflects the acquisition value of permanent improvements, other than buildings, which add value to land. Examples of such improvements are fences, retaining walls, sidewalks, pavements, gutters, tunnels, and bridges. If the improvements are purchased or constructed, this account contains the purchase or contract price. If improvements are obtained by gift, it reflects the appraised value at time of acquisition.

INCOME. A term used in accounting for governmental enterprises to represent the excess of revenues earned over the expenses incurred in carrying on the enterprise's operations. It should not be used without an appropriate modifier, such as OPERATING, NONOPERATING, or NET. See also OPERATING INCOME, NONOPERATING INCOME, and NET INCOME.

Note. The term INCOME should not be used in lieu of REVENUE (q.v.) in nonenterprise funds.

INCOME BONDS. See REVENUE BONDS.

INDENTURE. See BOND INDENTURE.

INDETERMINATE APPROPRIATION. An appropriation which is not limited either to any definite period of time or to any definite amount, or to both time and amount.

Note. A distinction must be made between an indeterminate appropriation and a continuing appropriation. In the first place, whereas a continuing appropriation is indefinite only as to time, an indeterminate appropriation is indefinite as to both time and amount. In the second place, even indeterminate appropriations which are indefinite only as to time are to be distinguished from continuing appropriations in that such indeterminate appropriations may eventually lapse. For example, an appropriation to construct a building may be made to continue in effect until the building is constructed. Once the building is completed, however, the unexpended balance of the appropriation lapses. A continuing appropriation, on the other hand, may continue forever; it can only be abolished by specific action of the legislative body.

INDIRECT CHARGES. See OVERHEAD.

INDUSTRIAL AID BONDS. Bonds issued by governmental units, the proceeds of which are used to construct plant facilities for private industrial concerns. Lease payments made by the industrial concern to the governmental unit are used to service the bonds. Such bonds may be in the form of general obligation bonds (q.v.) or combination bonds (q.v.) or revenue bonds (q.v.).

INTEREST AND PENALTIES RECEIVABLE ON TAXES. The uncollected portion of interest and penalties receivable on taxes.

INTEREST RECEIVABLE ON INVESTMENTS. The amount of interest receivable on investments, exclusive of interest purchased. Interest purchased should be shown in a separate account.

INTEREST RECEIVABLE—SPECIAL ASSESSMENTS. The amount of interest receivable on unpaid installments of special assessments.

INTERFUND ACCOUNTS. Accounts in which transactions between funds are reflected. See INTERFUND TRANSFERS.

INTERFUND LOANS. Loans made by one fund to another.

INTERFUND TRANSFERS. Amounts transferred from one fund to another.

INTERGOVERNMENTAL REVENUE. Revenue received from other governments in the form of grants, shared revenues, or payments in lieu of taxes.

INTERIM BORROWING. (1) Short-term loans to be repaid from general revenues during the course of a fiscal year. (2) Short-term loans in anticipation of tax collections or bond issuance. See BOND ANTICIPATION NOTES and TAX ANTICIPATION NOTES.

INTERIM STATEMENT. A financial statement prepared before the end of the current fiscal year and covering only financial transactions during the current year to date. See also STATEMENT.

INTERNAL CONTROL. A plan of organization under which employees' duties are so arranged and records and procedures so designed as to make it possible to exercise effective accounting control over assets, liabilities, revenues, and expenditures. Under such a system, the work of employees is subdivided so that no single employee performs a complete cycle of operations. Thus, for example, an employee handling cash would not post the accounts receivable records. Moreover, under such a system, the procedures to be followed are definitely laid down and require proper authorizations by designated officials for all actions to be taken.

INTRAGOVERNMENTAL SERVICE FUND. A fund established to finance and account for services and commodities furnished by a designated department or agency to other departments and agencies within a single governmental unit. Amounts expended by the fund are restored thereto

either from operating earnings or by transfers from other funds, so that the original fund capital is kept intact. Formerly called a Working Capital Fund.

INVENTORY. A detailed list showing quantities, descriptions, and values of property and frequently also units of measure and unit prices.

INVENTORY OF SUPPLIES. The cost value of supplies on hand.

INVESTIGATION. A special examination of books and records.

Note. The proper use of the word "investigation" in accountancy implies some particular object to be gained or particular result to be stated. It indicates something different from an audit and seldom requires qualification by the addition of "special" or any similar adjective.

INVESTMENT IN GENERAL FIXED ASSETS. An account in the general fixed assets group of accounts which represents the governmental unit's equity in general fixed assets (q.v.). The balance of this account is subdivided according to the source of funds which financed the asset acquisition, such as general fund revenues, special assessments, etc.

INVESTMENTS. Securities and real estate held for the production of income in the form of interest, dividends, rentals, or lease payments. The term does not include fixed assets used in governmental operations.

JOB ACCOUNT. An account pertaining either to an operation which occurs regularly (a "standing order") or to a specific piece of work (a "job order"), showing all charges for material and labor used and other expenses incurred, together with any allowances or other credits.

JOURNAL. Any book of original entry (q.v.). See also REGISTER.

JOURNAL VOUCHER. A voucher (q.v.) provided for the recording of certain transactions or information in place of or supplementary to the journals or registers. The journal voucher usually contains an entry or entries, explanations, references to documentary evidence supporting the entry or entries, and the signature or initials of one or more properly authorized officials. The collection of journal vouchers constitutes a journal.

JUDGMENT. An amount to be paid or collected by a governmental unit as the result of a court decision, including a condemnation award in payment for private property taken for public use.

JUDGMENT BONDS. Bonds issued to fund judgments (q.v.). See also FUNDING.

JUDGMENTS PAYABLE. Amounts due to be paid by a governmental unit as the result of court decisions, including condemnation awards in payment for private property taken for public use.

LAND. A fixed asset account which reflects the value of land owned by a governmental unit. If land is purchased, this account shows the purchase price and costs such as legal fees, filling and excavation costs, and

the like, which are incurred to put the land in condition for its intended use. If land is acquired by gift, the account reflects its appraised value at time of acquisition.

LAPSE. (Verb) As applied to appropriations, this term denotes the automatic termination of an appropriation.

Note. Except for indeterminate appropriations (q.v.) and continuing appropriations (q.v.), an appropriation is made for a certain period of time. At the end of this period, any unexpended or unencumbered balance thereof lapses, unless otherwise provided by law.

LEASEHOLD. The right to the use of real estate by virtue of a lease, usually for a specified term of years, for which a consideration is paid.

LEDGER. A group of accounts in which are recorded the financial transactions of a governmental unit or other organization. A ledger is a summary of transactions according to the accounts affected.

LEGAL DEBT LIMIT. See DEBT LIMIT.

LEGAL INVESTMENTS. (1) Investments which savings banks, insurance companies, trustees, and other fiduciaries (individual or corporate) are permitted to make by the laws of the state in which they are domiciled, or under the jurisdiction of which they operate or serve. The investments which meet the conditions imposed by law constitute the legal investment list. (2) Investments which governmental units are permitted to make by law.

LEGAL OPINION. (1) The opinion of an official authorized to render it, such as an attorney general or city attorney, as to legality. (2) In the case of municipal bonds, the opinion of a specialized bond attorney as to the legality of a bond issue.

LEVY. (Verb) To impose taxes, special assessments, or service charges for the support of governmental activities. (Noun) The total amount of taxes, special assessments, or service charges imposed by a governmental unit.

LIABILITIES. Debt or other legal obligations arising out of transactions in the past which must be liquidated, renewed, or refunded at some future date.

Note. The term does not include encumbrances (q.v.).

LOAN FUND. A fund whose principal and/or interest is loaned to individuals in accordance with the legal requirements and agreements setting up the fund. Such a fund is accounted for as a trust fund. See also TRUST FUND.

LOANS RECEIVABLE. Amounts which have been loaned to persons or organizations, including notes taken as security for such loans. The account is usually found only in the Trust and Agency Funds balance sheet.

LOCAL IMPROVEMENT FUND. See SPECIAL ASSESSMENT FUND.

LOCAL IMPROVEMENT TAX. See SPECIAL ASSESSMENT.

LONG-TERM BUDGET. A budget prepared for a period longer than a fiscal year, or in the case of some state governments, a budget prepared for a period longer than a biennium. If the long-term budget is restricted to capital expenditures, it is called a CAPITAL PROGRAM (q.v.) or a CAPITAL IMPROVEMENT PROGRAM.

LONG-TERM DEBT. Debt with a maturity of more than one year after the date of issuance.

LUMP-SUM APPROPRIATION. An appropriation made for a stated purpose, or for a named department, without specifying further the amounts that may be spent for specific activities or for particular objects of expenditure. An example of such an appropriation would be one for the police department which does not specify the amounts to be spent for uniform patrol, traffic control, etc. or for salaries and wages, materials and supplies, travel, etc.

MACHINERY AND EQUIPMENT. See EQUIPMENT.

MATURED BONDS PAYABLE. Bonds which have reached or passed their maturity date but which remain unpaid.

MATURED INTEREST PAYABLE. Interest on bonds which has reached the maturity date but which remains unpaid.

MAINTENANCE. The upkeep of physical properties in condition for use or occupancy. Examples are the inspection of equipment to detect defects and the making of repairs.

MODIFIED ACCRUAL BASIS. A system under which some accruals, usually costs, are recorded but others, usually revenues, are not. The extent of modification varies in practice, depending upon the accountant's judgment.

MODIFIED CASH BASIS. Same as MODIFIED ACCRUAL BASIS.

MORTGAGE BONDS. Bonds secured by a mortgage against specified properties of a governmental unit, usually its public utilities or other enterprises. If primarily payable from enterprise revenues, they are also classed as revenue bonds. See also REVENUE BONDS.

MUNICIPAL. In its broadest sense, an adjective which denotes the state and all subordinate units of government. In a more restricted sense, an adjective which denotes a city or town as opposed to other units of local government.

MUNICIPAL BOND. A bond (q.v.) issued by a state or local governmental unit.

MUNICIPAL CORPORATION. A body politic and corporate established pursuant to state authorization for the purpose of providing governmental services and regulations for its inhabitants. A municipal corporation has defined boundaries and a population, and is usually organized with the consent of its residents. It usually has a seal and may sue and be sued.

Cities and towns are examples of municipal corporations. See also QUASI-MUNICIPAL CORPORATIONS.

MUNICIPAL IMPROVEMENT CERTIFICATES. Certificates issued in lieu of bonds for the financing of special improvements.

Note. As a rule, these certificates are placed in the contractor's hands for collection from the special assessment payers.

NET BONDED DEBT. Gross bonded debt (q.v.) less any cash or other assets available and earmarked for its retirement.

NET INCOME. A term used in accounting for governmental enterprises to designate the excess of total revenues (q.v.) over total expenses (q.v.) for an accounting period. See also INCOME, OPERATING REVENUE, OPERATING EXPENSES, NONOPERATING INCOME, and NONOPERATING EXPENSES.

NET PROFIT. See NET INCOME.

NET REVENUE. See NET INCOME.

NET REVENUE AVAILABLE FOR DEBT SERVICE. Gross operating revenues of an enterprise less operating and maintenance expenses but exclusive of depreciation and bond interest. "Net Revenue" as thus defined is used to compute "coverage" on revenue bond issues.

Note. Under the laws of some states and the provisions of some revenue bond indentures, net revenues used for computation of coverage are required to be on a cash basis rather than an accrual basis.

NOMINAL INTEREST RATE. The contractual interest rate shown on the face and in the body of a bond and representing the amount of interest to be paid, in contrast to the effective interest rate (q.v.). See also COUPON RATE.

NONEXPENDABLE FUND. A fund the principal and sometimes also the earnings of which may not be expended. See also ENDOWMENT FUND.

NONEXPENDITURE DISBURSEMENTS. Disbursements which are not chargeable as expenditures; for example, a disbursement made for the purpose of paying off an account payable previously recorded on the books.

NONOPERATING EXPENSES. Expenses (q.v.) incurred for nonoperating properties or in the performance of activities not directly related to supplying the basic service by a governmental enterprise. An example of a nonoperating expense is interest paid on outstanding revenue bonds. See also NONOPERATING PROPERTIES.

NONOPERATING INCOME. Income of governmental enterprises which is not derived from the basic operations of such enterprises. An example is interest on investments or on bank time deposits.

NONOPERATING PROPERTIES. Properties which are owned by a governmental enterprise but which are not used in the provision of basic services for which the enterprise exists.

NONREVENUE RECEIPTS. Collections other than revenue (q.v.), such as receipts from loans where the liability is recorded in the fund in which

the proceeds are placed, and receipts on account of recoverable expenditures. See also REVENUE RECEIPTS.

NOTES PAYABLE. In general, an unconditional written promise signed by the maker to pay a certain sum in money on demand or at a fixed or determinable time either to the bearer or to the order of a person designated therein. See also TEMPORARY LOANS.

NOTES RECEIVABLE. A note payable held by a governmental unit.

OBJECT. As used in expenditure classification, this term applies to the article purchased or the service obtained (as distinguished from the results obtained from expenditures). Examples are personal services, contractual services, materials, and supplies. See also ACTIVITY, CHARACTER, FUNCTION, and OBJECT CLASSIFICATION.

OBJECT CLASSIFICATION. A grouping of expenditures on the basis of goods or services purchased; for example, personal services, materials, supplies, and equipment. See also FUNCTIONAL, ACTIVITY, and CHARACTER CLASSIFICATIONS.

OBJECTS OF EXPENDITURE. See OBJECT.

OBLIGATIONS. Amounts which a governmental unit may be required legally to meet out of its resources. They include not only actual liabilities, but also unliquidated encumbrances.

OBSOLESCENCE. The decrease in the value of fixed assets resulting from economic, social, technological, or legal changes.

OPERATING BUDGET. A budget which applies to all outlays other than capital outlays. See BUDGET.

OPERATING EXPENSES. (1) As used in the accounts of governmental enterprises, the term means those costs which are necessary to the maintenance of the enterprise, the rendering of services, the sale of merchandise, the production and disposition of commodities produced, and the collection of enterprise revenues. (2) The term is also sometimes used to describe expenses for general governmental purposes.

OPERATING INCOME. Income of a governmental enterprise which is derived from the sale of its goods and/or services. For example, income from the sale of water by a municipal water utility is operating income. See also OPERATING REVENUES.

OPERATING REVENUES. Revenues derived from the operation of governmental enterprises of a business character.

OPERATING STATEMENT. A statement summarizing the financial operations of a governmental unit for an accounting period as contrasted with a balance sheet (q.v.) which shows financial position at a given moment in time.

ORDER. A formal legislative enactment by the governing body of certain local governmental units which has the full force and effect of law. For

example. county governing bodies in some states pass "orders" rather than laws or ordinances.

ORDINANCE. A formal legislative enactment by the council or governing body of a municipality. If it is not in conflict with any higher form of law, such as a state statute or constitutional provision, it has the full force and effect of law within the boundaries of the municipality to which it applies.

Note. The difference between an ordinance and a resolution (q.v.) is that the latter requires less legal formality and has a lower legal status. Ordinarily, the statutes or charter will specify or imply those legislative actions which must be by ordinance and those which may be by resolution. Revenue raising measures, such as the imposition of taxes, special assessments and service charges, universally require ordinances.

ORIGINAL COST. The total of assets given and/or liabilities assumed to acquire an asset. In utility accounting, the original cost to the first owner who dedicated the plant to service of the public.*

OUTLAYS. Synonymous with EXPENDITURES. See also CAPITAL OUTLAYS.

OVERDRAFT. (1) The amount by which checks, drafts, or other demands for payment on the treasury or on a bank exceed the amount of the credit against which they are drawn. (2) The amount by which requisitions, purchase orders, or audited vouchers exceed the appropriation or other credit to which they are chargeable.

OVERHEAD. Those elements of cost necessary in the production of an article or the performance of a service which are of such a nature that the amount applicable to the product or service cannot be determined accurately or readily. Usually they relate to those objects of expenditures which do not become an integral part of the finished product or service, such as rent, heat, light, supplies, management, supervision, etc.

OVERLAPPING DEBT. The proportionate share of the debts of local governmental units located wholly or in part within the limits of the reporting government which must be borne by property within each governmental unit.

Note. Except for special assessment debt, the amount of debt of each unit applicable to the reporting unit is arrived at by (1) determining what percentage of the total assessed value of the overlapping jurisdiction lies within the limits of the reporting unit, and (2) applying this percentage to the total debt of the overlapping jurisdiction. Special assessment debt is allocated on the basis of the ratio of assessments receivable in each jurisdiction which will be used wholly or in part to pay off the debt to total assessments receivable which will be used wholly or in part for this purpose.

PAY-AS-YOU-GO BASIS. A term used to describe the financial policy of a

governmental unit which finances all of its capital outlays from current revenues rather than by borrowing. A governmental unit which pays for some improvements from current revenues and others by borrowing is said to be on a partial or modified pay-as-you-go basis.

PAY-IN WARRANT. See DEPOSIT WARRANT.

PENSION FUND. See RETIREMENT FUND.

PERFORMANCE BUDGET. A budget wherein expenditures are based primarily upon measurable performance of activities and work programs. A performance budget may also incorporate other bases of expenditure classification, such as character and object, but these are given a subordinate status to activity performance.

PERPETUAL INVENTORY. A system whereby the inventory of units of property at any date may be obtained directly from the records without resorting to an actual physical count. A record is provided for each item or group of items to be inventoried and is so divided as to provide a running record of goods ordered, received, and withdrawn, and the balance on hand, in units and frequently also in value.

PETTY CASH. A sum of money set aside for the purpose of making change or paying small obligations for which the issuance of a formal vouncher and check would be too expensive and time-consuming. Sometimes called a petty cash fund, with the term "fund" here being used in the commercial sense of earmarked liquid assets. See also IMPREST SYSTEM.

PETTY CASH VOUCHER. A voucher used to record individual disbursements of petty cash. See IMPREST SYSTEM.

POLL TAX. A head tax of a fixed amount, usually upon males and usually within a given range of ages.*

POSTAUDIT. An audit made after the transactions to be audited have taken place and have been recorded or have been approved for recording by designated officials if such approval is required. See also PREAUDIT.

POSTING. The act of transferring to an account in a ledger the data, either detailed or summarized, contained in a book or document of original entry.

PREAUDIT. An examination for the purpose of determining the propriety of proposed financial transactions and financial transactions which have already taken place but which have not yet been recorded; or, if such approval is required, before the approval of the financial transactions by designated officials for recording.

PREPAID EXPENSES. Expenses entered in the accounts for benefits not yet received. Prepaid expenses differ from deferred charges in that they are spread over a shorter period of time than deferred charges and are regularly recurring costs of operations. Examples of prepaid expenses are prepaid rent, prepaid interest, and premiums on unexpired insur-

ance. An example of a deferred charge is unamortized discounts on bonds sold.

PREPAYMENT OF TAXES. The deposit of money with a governmental unit on condition that the amount deposited is to be applied against the tax liability of a designated taxpayer after the taxes have been levied and such liability has been established. See also TAXES COLLECTED IN ADVANCE.

PRIOR YEARS' TAX LEVIES. Taxes levied for fiscal periods preceding the current one.

PRIVATE TRUST FUND. A trust fund (q.v.) which will ordinarily revert to private individuals or will be used for private purposes; for example, a fund which consists of guarantee deposits.

PRO FORMA. For form's sake; an indication of form; an example. The term is used in conjunction with a noun to denote merely a sample form, document, statement, certificate, or presentation, the contents of which may be either wholly or partially hypothetical, actual facts, estimates, or proposals.

PROGRAM BUDGET. A budget wherein expenditures are based primarily on programs of work and secondarily on character and object. A program budget is a transitional type of budget between the traditional character and object budget, on the one hand, and the performance budget, on the other. See also PERFORMANCE BUDGET and TRADITIONAL BUDGET.

PROJECT. A plan of work, job, assignment, or task. Also used to refer to a job or task.

PROPRIETARY ACCOUNTS. Those accounts which show actual financial position and operations, such as actual assets, liabilities, reserves, fund balances, revenues, and expenditures, as distinguished from budgetary accounts (q.v.).

PUBLIC AUTHORITY. See AUTHORITY.

PUBLIC CORPORATION. See MUNICIPAL CORPORATION and QUASI-MUNICIPAL CORPORATION.

PUBLIC IMPROVEMENT FUND. See SPECIAL ASSESSMENT FUND.

PUBLIC TRUST FUND. A trust fund (q.v.) whose principal, earnings, or both, must be used for a public purpose; for example, a pension or retirement fund.

PURCHASE ORDER. A document which authorizes the delivery of specified merchandise or the rendering of certain services and the making of a charge for them.

QUASI-MUNICIPAL CORPORATION. An agency established by the state primarily for the purpose of helping the state to carry out its functions; for example, a county or school district.

Note. Some counties and other agencies ordinarily classified as quasi-municipal corporations have been granted the powers of municipal

RESERVE FOR ENCUMBRANCES. A reserve representing the segregation of a portion of a fund balance to provide for unliquidated encumbrances (q.v.). See also RESERVE.

RESERVE FOR INVENTORY OF SUPPLIES. A reserve which represents the segregation of a portion of fund balance to indicate that assets equal to the amount of the reserve are tied up in inventories and are, therefore, not available for appropriation.

RESERVE FOR MEMBERSHIP ANNUITIES. A reserve in a Trust Fund for a public employee retirement system which represents the amount set aside for payment of annuities to retired members. In a joint contributory system this reserve is established at the time of employee retirement by transfers from accumulations in the Reserve for Employees' Contributions and the Reserve for Employer Contributions accounts.

RESERVE FOR REVENUE BOND CONTINGENCY. A reserve in an Enterprise Fund which represents the segregation of a portion of retained earnings equal to current assets that are restricted for meeting various contingencies, as may be specified and defined in the revenue bond indenture.

RESERVE FOR REVENUE BOND DEBT SERVICE. A reserve in an Enterprise Fund which represents the segregation of a portion of retained earnings equal to current assets that are restricted to current servicing of revenue bonds in accordance with the terms of a bond indenture.

RESERVE FOR REVENUE BOND RETIREMENT. A reserve in an Enterprise Fund which represents the segregation of a portion of retained earnings equal to current assets that are restricted for future servicing of revenue bonds in accordance with the terms of a bond indenture.

RESERVE FOR UNCOLLECTED TAXES. A reserve representing the segregation of a portion of a fund balance equal to the amount of taxes receivable by a fund.

RESERVE FOR UNDISTRIBUTED INTEREST EARNINGS. An unallocated reserve in a Trust Fund for a public employee retirement system which represents interest earnings of the system that have not been distributed to other reserves such as the Reserve for Employees' Contributions and the Reserve for Employer Contributions.

RESERVE FOR VARIATIONS IN ACTUARIAL ASSUMPTIONS. An unallocated reserve in a Trust Fund for a public employee retirement system which reflects adjustments to reserves for retirement benefits in force resulting from variations in mortality, turnover, and interest experience.

RESOLUTION. A special or temporary order of a legislative body; an order of a legislative body requiring less legal formality than an ordinance or statute. See also ORDINANCE.

RESOURCES. The actual assets of a governmental unit, such as cash, taxes receivable, land, buildings, etc. plus contingent assets such as estimated revenues applying to the current fiscal year not accrued or collected.

and bonds authorized and unissued. See CAPITAL RESOURCES and CURRENT RESOURCES.

RETAINED EARNINGS. The accumulated earnings of an Enterprise or Intragovernmental Service Fund which have been retained in the fund and which are not reserved for any specific purpose.

RETIREMENT ALLOWANCES. Amounts paid to government employees who have retired from active service or to their survivors. See ANNUITY.

RETIREMENT FUND. A fund out of which retirement annuities and/or other benefits are paid to authorized and designated public employees. A retirement fund is accounted for as a Trust Fund (q.v.).

REVENUE. For those revenues which are recorded on the accrual basis (q.v.), this term designates additions to assets which: (*a*) do not increase any liability; (*b*) do not represent the recovery of an expenditure; (*c*) do not represent the cancellation of certain liabilities without a corresponding increase in other liabilities or a decrease in assets; and (*d*) do not represent contributions of fund capital in Enterprise and Intragovernmental Service Funds. The same definition applies to those cases where revenues are recorded on the modified accrual or cash basis, except that additions would be partially or entirely to cash. See also ACCRUAL BASIS, MODIFIED ACCRUAL BASIS, CASH BASIS, NET REVENUE AVAILABLE FOR DEBT SERVICE, and RECEIPTS.

REVENUE BONDS. Bonds whose principal and interest are payable exclusively from earnings of a public enterprise. In addition to a pledge of revenues, such bonds sometimes contain a mortgage on the enterprise's property and are then known as mortgage revenue bonds.

REVENUE RECEIPTS. A term used synonymously with "revenue" (q.v.) by some governmental units which account for their revenues on a cash basis (q.v.). See also NONREVENUE RECEIPTS.

REVENUES COLLECTED IN ADVANCE. A liability account which represents revenues collected before they become due.

REVOLVING FUND. See INTRAGOVERNMENTAL SERVICE FUND.

SCHEDULES. (1) The explanatory or supplementary statements that accompany the balance sheet or other principal statements periodically prepared from the accounts. (2) The accountant's or auditor's principal work papers covering his examination of the books and accounts. (3) A written enumeration or detailed list in orderly form. See also EXHIBIT and STATEMENTS.

SCRIP. An evidence of indebtedness, usually in small denomination, secured or unsecured, interest-bearing or noninterest-bearing, stating that the governmental unit, under conditions set forth, will pay the face value of the certificate or accept it in payment of certain obligations.

SECURITIES. Bonds, notes, mortgages, or other forms of negotiable or nonnegotiable instruments. See also INVESTMENTS.

SELF-SUPPORTING OR SELF-LIQUIDATING DEBT. Debt obligations whose principal and interest are payable solely from the earnings of the enterprise for the construction or improvement of which they were originally issued. See also REVENUE BONDS.

SERIAL ANNUITY BONDS. Serial bonds in which the annual installments of bond principal are so arranged that the combined payments for principal and interest are approximately the same each year.

SERIAL BONDS. Bonds the principal of which is repaid in periodic installments over the life of the issue. See SERIAL ANNUITY BONDS and DEFERRED SERIAL BONDS.

SHARED REVENUE. Revenue which is levied by one governmental unit but shared, usually in proportion to the amount collected, with another unit of government or class of governments.

SHARED TAX. See SHARED REVENUE.

SHORT-TERM DEBT. Debt with a maturity of one year or less after the date of issuance. Short-term debt usually includes floating debt, bond anticipation notes, tax anticipation notes, and interim warrants.

SINKING FUND. See DEBT SERVICE FUND.

SINKING FUND BONDS. Bonds issued under an agreement which requires the governmental unit to set aside periodically out of its revenues a sum which, with compound earnings thereon, will be sufficient to redeem the bonds at their stated date of maturity. Sinking Fund bonds are usually also term bonds (q.v.).

SPECIAL ASSESSMENT. A compulsory levy made by a local government against certain properties to defray part or all of the cost of a specific improvement or service which is presumed to be of general benefit to the public and of special benefit to such properties.

Note. The term should not be used without a modifier (for example, "special assessments for street paving," or "special assessments for street sprinkling") unless the intention is to have it cover both improvements and services or unless the particular use is apparent from the context.

SPECIAL ASSESSMENT BONDS. Bonds payable from the proceeds of special assessments (q.v.). If the bonds are payable only from the collections of special assessments, they are known as "special-special assessment bonds." If, in addition to the assessments, the full faith and credit of the governmental unit are pledged, they are known as "general obligation special assessment bonds."

SPECIAL ASSESSMENT FUND. A fund set up to finance and account for the construction of improvements or provision of services which are to be paid for, wholly or in part, from special assessments levied against benefited property. See also SPECIAL ASSESSMENT and SPECIAL ASSESSMENT BONDS.

SPECIAL ASSESSMENT LIENS RECEIVABLE. Claims which a governmental

unit has upon properties until special assessments (q.v.) levied against them have been paid. The term normally applies to those delinquent special assessments for the collection of which legal action has been taken through the filing of claims.

SPECIAL ASSESSMENT ROLL. The official list showing the amount of special assessments (q.v.) levied against each property presumed to be benefited by an improvement or service.

SPECIAL AUDIT. An audit which is limited to some particular phase of a governmental unit's activity, such as the examination of a Capital Projects Fund, or an audit which covers all of the governmental unit's activities for a shorter or longer period of time than the usual accounting period of one fiscal year. Such audits may involve some detailed verifications as determined by the professional judgment of the auditor, but usually they are based on appropriate tests and checks. See GENERAL AUDIT.

SPECIAL DISTRICT. An independent unit of local government organized to perform a single governmental function or a restricted number of related functions. Special districts usually have the power to incur debt and levy taxes; however, certain types of special districts are entirely dependent upon enterprise earnings and cannot impose taxes. Examples of special districts are water districts, drainage districts, flood control districts, hospital districts, fire protection districts, transit authorities, port authorities, and electric power authorities.

SPECIAL DISTRICT BONDS. Bonds issued by a special district. See SPECIAL DISTRICT.

SPECIAL FUND. Any fund which must be devoted to some special use in accordance with specific regulations and restrictions. Generally, the term applies to all funds other than the General Fund (q.v.).

SPECIAL REVENUE FUND. A fund used to account for revenues from specific taxes or other earmarked revenue sources which by law are designated to finance particular functions or activities of government. After the fund is established, it usually continues year after year until discontinued or revised by proper legislative authority. An example is a motor fuel tax fund used to finance highway and road construction.

SPECIAL-SPECIAL ASSESSMENT BONDS. See SPECIAL ASSESSMENT BONDS.

STANDARD COST. The predetermined cost of performing an operation or producing a product when labor, materials, and equipment are utilized efficiently under reasonable and normal conditions.

Note. Normal conditions exist when there is an absence of special or extraordinary factors affecting the quality or quantity of the work performed, or the time or method of performing it.

STATE-COLLECTED LOCALLY SHARED TAX. Tax collected by state, distributed in part to local governments.*

STATEMENTS. (1) Used in a general sense, statements are all of those formal written presentations which set forth financial information. (2) In technical accounting usage, statements are those presentations of financial data which show the financial position and the results of financial operations of a fund, a group of accounts, or an entire governmental unit for a particular accounting period. See also EXHIBIT and SCHEDULE.

STATUTE. A written law enacted by a duly organized and constituted legislative body. See also ORDINANCE, RESOLUTION, and ORDER.

STORES. Goods on hand in storerooms, subject to requisition and use.

STRAIGHT SERIAL BONDS. Serial bonds (q.v.) in which the annual installments of a bond principal are approximately equal.

SUBACTIVITY. A specific line of work performed in carrying out a governmental activity. For example, cleaning luminaires and replacing defective street lamps would be subactivities under the activity of street light maintenance.

SUBFUNCTION. A grouping of related activities within a particular governmental function. For example, "police" is a subfunction of the function "public safety."

SUBSIDIARY ACCOUNT. One of a group of related accounts which support in detail the debit and credit summaries recorded in a control account. An example is the individual property taxpayers' accounts for taxes receivable in the general ledger. See also CONTROL ACCOUNT and SUBSIDIARY LEDGER.

SUBSIDIARY LEDGER. A group of subsidiary accounts (q.v.) the sum of the balances of which is equal to the balance of the related control account. See also CONTROL ACCOUNT and SUBSIDIARY ACCOUNT.

SUBVENTION. A grant (q.v.).

SURETY BOND. A written promise to pay damages or to indemnify against losses caused by the party or parties named in the document, through nonperformance or through defalcation. An example is a surety bond given by a contractor or by an official handling cash or securities.

SURPLUS. See FUND BALANCE, RETAINED EARNINGS, and INVESTMENT IN GENERAL FIXED ASSETS.

SURPLUS RECEIPTS. A term sometimes applied to receipts which increase the balance of a fund but are not a part of its normal revenue; for example, collection of accounts previously written off. Sometimes used as an account title.*

SUSPENSE ACCOUNT. An account which carries charges or credits temporarily, pending the determination of the proper account or accounts to which they are to be posted. See also SUSPENSE FUND.

SUSPENSE FUND. A fund established to account separately for certain

receipts pending the distribution or disposal thereof. See also AGENCY FUND.

SYMBOLIZATION. The assignment of letters, numbers, or other marks or characters to the ordinary titles of the ledger accounts. Each letter or number should have the same meaning wherever used and should be selected with great care so that it will indicate immediately and with certainty the title of the account, as well as its place in the classification. The use of proper symbols saves much time and space in making the book record and adds to its precision and accuracy. See also CODING.

SYNDICATE, UNDERWRITING. A group formed for the marketing of a given security issue too large for one member to handle expeditiously, after which the group is dissolved.*

TAX ANTICIPATION NOTES. Notes (sometimes called warrants) issued in anticipation of collection of taxes, usually retirable only from tax collections, and frequently only from the proceeds of the tax levy whose collection they anticipate.

TAX ANTICIPATION WARRANTS. See TAX ANTICIPATION NOTES.

TAX CERTIFICATE. A certificate issued by a governmental unit as evidence of the conditional transfer of title to tax-delinquent property from the original owner to the holder of the certificate. If the owner does not pay the amount of the tax arrearage and other charges required by law during the specified period of redemption, the holder can foreclose to obtain title. Also called "tax sale certificate" and "tax lien certificate" in some jurisdictions. See also TAX DEED.

TAX DEED. A written instrument by which title to property sold for taxes is transferred unconditionally to the purchaser. A tax deed is issued upon foreclosure of the tax lien (q.v.) obtained by the purchaser at the tax sale. The tax lien cannot be foreclosed until the expiration of the period during which the owner may redeem his property through paying the delinquent taxes and other charges. See also TAX CERTIFICATE.

TAX LEVY ORDINANCE. An ordinance (q.v.) by means of which taxes are levied.

TAX LIENS. Claims which governmental units have upon properties until taxes levied against them have been paid.

Note. The term is sometimes limited to those delinquent taxes for the collection of which legal action has been taken through the filing of liens.

TAX LIENS RECEIVABLE. Legal claims against property which have been exercised because of nonpayment of delinquent taxes, interest, and penalties. The account includes delinquent taxes, interest, and penalties receivable up to the date the lien becomes effective, and the cost of holding the sale.

TAX NOTES. See TAX ANTICIPATION NOTES.

TAX RATE. The amount of tax stated in terms of a unit of the tax base; for example, 25 mills per dollar of assessed valuation of taxable property.

TAX RATE LIMIT. The maximum rate at which a governmental unit may levy a tax. The limit may apply to taxes raised for a particular purpose, or to taxes imposed for all purposes; and may apply to a single government, to a class of governments, or to all governmental units operating in a particular area. Overall tax rate limits usually restrict levies for all purposes and of all governments, state and local, having jurisdiction in a given area.

TAX ROLL. The official list showing the amount of taxes levied against each taxpayer or property. Frequently, the tax roll and the assessment roll (q.v.) are combined, but even in these cases the two can be distinguished.

TAX SALE CERTIFICATE. See TAX CERTIFICATE.

TAX SUPPLEMENT. A tax levied by a local unit of government which has the same base as a similar tax levied by a higher level of government, such as a state or province. The local tax supplement is frequently administered by the higher level of government along with its own tax. A locally imposed, state-administered sales tax is an example of a tax supplement.

TAX TITLE NOTES. Obligations secured by pledges of the governmental unit's interest in certain tax liens or tax titles.

TAXES. Compulsory charges levied by a governmental unit for the purpose of financing services performed for the common benefit.

Note. The term does not include specific charges made against particular persons or property for current or permanent benefits such as special assessments. Neither does the term include charges for services rendered only to those paying such charges as, for example, sewer service charges.

TAXES COLLECTED IN ADVANCE. A liability for taxes collected before the tax levy has been made or before the amount of taxpayer liability has been established.

TAXES LEVIED FOR OTHER GOVERNMENTAL UNITS. Taxes levied by the reporting governmental unit for other governmental units, which, when collected, are to be paid over to these units.

TAXES PAID IN ADVANCE. Same as TAXES COLLECTED IN ADVANCE. Also called PREPAID TAXES.

TAXES RECEIVABLE—CURRENT. The uncollected portion of taxes which a governmental unit has levied, which has become due but on which no penalty for nonpayment attaches.

TAXES RECEIVABLE—DELINQUENT. Taxes remaining unpaid on and after the date on which a penalty for nonpayment is attached. Even though

the penalty may be subsequently waived and a portion of the taxes may be abated or canceled, the unpaid balances continue to be delinquent taxes until paid, abated, canceled, or converted into tax liens.

TEMPORARY LOANS. Short-term obligations representing amounts borrowed for short periods of time and usually evidenced by notes payable (q.v.) or warrants payable (q.v.). They may be unsecured, or secured by specific revenues to be collected. See also TAX ANTICIPATION NOTES.

TERM BONDS. Bonds the entire principal of which matures on one date. Also called sinking fund bonds (q.v.).

TERM BONDS PAYABLE. A liability account which records the face value of general obligation term bonds issued and outstanding.

TIME WARRANT. A negotiable obligation of a governmental unit having a term shorter than bonds, and frequently tendered to individuals and firms in exchange for contractual services, capital acquisitions, or equipment purchases.

TIME WARRANTS PAYABLE. The amount of time warrants outstanding and unpaid.

TRADITIONAL BUDGET. A term sometimes applied to the budget of a governmental unit wherein expenditures are based entirely or primarily on objects of expenditure. See also PROGRAM BUDGET and PERFORMANCE BUDGET.

TRANSFER VOUCHER. A voucher (q.v.) authorizing transfers of cash or other resources between funds.

TRIAL BALANCE. A list of the balances of the accounts in a ledger kept by double entry (q.v.), with the debit and credit balances shown in separate columns. If the totals of the debit and credit columns are equal or their net balance agrees with a control account, the ledger from which the figures are taken is said to be "in balance."

TRUST FUND. A fund consisting of resources received and held by the governmental unit as trustee, to be expended or invested in accordance with the conditions of the trust. See also ENDOWMENT FUND, PRIVATE TRUST FUND, and PUBLIC TRUST FUND.

TRUST AND AGENCY FUND. See AGENCY FUND and TRUST FUND.

UNALLOTTED BALANCE OF APPROPRIATION. An appropriation balance available for allotment (q.v.).

UNAMORTIZED DISCOUNTS ON BONDS SOLD. That portion of the excess of the face value of bonds over the amount received from their sale which remains to be written off periodically over the life of the bonds.

UNAMORTIZED DISCOUNTS ON INVESTMENTS (Credit). That portion of the excess of the face value of securities over the amount paid for them which has not yet been written off.

UNAMORTIZED PREMIUMS ON BONDS SOLD. An account in an Enterprise Fund which represents that portion of the excess of bond proceeds over par value and which remains to be amortized over the remaining life of such bonds.

UNAMORTIZED PREMIUMS ON INVESTMENTS. That portion of the excess of the amount paid for securities over their face value which has not yet been amortized. .

UNAPPROPRIATED BUDGET SURPLUS. Where the fund balance at the close of the preceding year is not included in the annual budget, this term designates that portion of the current fiscal year's estimated revenues which has not been appropriated. Where the fund balance of the preceding year is included, this term designates the estimated fund balance at the end of the current fiscal period.

UNAUDITED VOUCHERS. Claims which have been received but which have not yet gone through the total vouchering process.

UNBILLED ACCOUNTS RECEIVABLE. An account which designates the estimated amount of accounts receivable for services or commodities sold but not billed. For example, if a utility bills its customers bimonthly but prepares monthly financial statements, the amount of services rendered or commodities sold during the first month of the bimonthly period would be reflected in the balance sheet under this account title.

UNDERWRITING SYNDICATE. See SYNDICATE, UNDERWRITING.*

UNEARNED INCOME. See DEFERRED CREDITS.

UNENCUMBERED ALLOTMENT. That portion of an allotment not yet expended or encumbered.

UNENCUMBERED APPROPRIATION. That portion of an appropriation not yet expended or encumbered.

UNEXPENDED ALLOTMENT. That portion of an allotment which has not been expended.

UNEXPENDED APPROPRIATION. That portion of an appropriation which has not been expended.

UNIT COST. A term used in cost accounting to denote the cost of producing a unit of product or rendering a unit of service; for example, the cost of treating and purifying a thousand gallons of sewage.

UNIT TAX LEDGER. A ledger which records the assessed value and other data on taxable properties. Where the unit tax ledger system is used, there is an individual ledger card for each piece of taxable property; legal provisions permitting, this ledger functions in lieu of a tax roll.

UNLIQUIDATED ENCUMBRANCES. Encumbrances outstanding.

UNREALIZED REVENUE. See ACCRUED REVENUE.

UTILITY FUND. See ENTERPRISE FUND.

VALUE. As used in governmental accounting, this term designates (1) the act of describing anything in terms of money; or (2) the measure of a

thing in terms of money. The term should not be used without further qualification. See also BOOK VALUE and FACE VALUE.

VOUCHER. A written document which evidences the propriety of transactions and usually indicates the accounts in which they are to be recorded.

VOUCHER CHECK. A document combining a check and a brief description of the transaction covered by the check, the two parts separated by a perforated horizontal line, for separation of the two parts.*

VOUCHER SYSTEM. A system which calls for the preparation of vouchers (q.v.) for transactions involving payments and for the recording of such vouchers in a special book of original entry (q.v.), known as a voucher register, in the order in which payment is approved.

VOUCHERS PAYABLE. Liabilities for goods and services evidenced by vouchers which have been preaudited and approved for payment but which have not been paid.

WARRANT. An order drawn by the legislative body or an officer of a governmental unit upon its treasurer, directing the latter to pay a specified amount to the person named or to the bearer. It may be payable upon demand, in which case it usually circulates the same as a bank check; or it may be payable only out of certain revenues when and if received, in which case it does not circulate as freely. See also REGISTERED WARRANT and DEPOSIT WARRANT.

WARRANTS PAYABLE. The amount of warrants outstanding and unpaid.

WORK IN PROCESS. The cost of partially completed products manufactured or processed, such as a partially completed printing job. Sometimes referred to as "work in progress." See also CONSTRUCTION WORK IN PROGRESS.

WORK IN PROGRESS. See CONSTRUCTION WORK IN PROGRESS and WORK IN PROCESS.

WORK ORDER. A written order authorizing and directing the performance of a certain task and issued to the person who is to direct the work. Among the items of information shown on the order are the nature and location of the job, specifications of the work to be performed, and a job number which is referred to in reporting the amount of labor, materials, and equipment used.

WORK PROGRAM. A plan of work proposed to be done during a particular period by an administrative agency in carrying out its assigned activities.

WORK UNIT. A fixed quantity which will consistently measure work effort expended in the performance of an activity or the production of a commodity.

WORKING CAPITAL FUND. See INTRAGOVERNMENTAL SERVICE FUND.

YIELD RATE. See EFFECTIVE INTEREST RATE.

Appendix 2

Basic Principles Recommended by the National Committee on Governmental Accounting*

Legal compliance and financial operations

1. A governmental accounting system must make it possible: (*a*) to show that all applicable legal provisions have been complied with; and (*b*) to determine fairly and with full disclosure the financial position and results of financial operations of the constituent funds and self-balancing account groups of the governmental unit.

Conflicts between accounting principles and legal provisions

2. If there is a conflict between legal provisions and generally accepted accounting principles applicable to governmental units, legal provisions must take precedence. Insofar as possible, however, the governmental accounting system should make possible the full disclosure and fair presentation of financial position and operating results in accordance with generally accepted principles of accounting applicable to governmental units.

The budget and budgetary accounting

3. An annual budget should be adopted by every governmental unit, whether required by law or not, and the accounting system should provide budgetary control over general governmental revenues and expenditures.

Fund accounting

4. Governmental accounting systems should be organized and operated on a fund basis. A fund is defined as an independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources together with all related liabilities, obligations, reserves, and

* The principles presented here are quoted from National Committee on Governmental Accounting, *Governmental Accounting, Auditing and Financial Reporting* (Chicago: Municipal Finance Officer Association, 1968), pp. 3–14; a brief explanation of each principle is also presented on those pages.

equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

Types of funds

5. The following types of funds are recognized and should be used in accounting for governmental financial operations as indicated.

(1) The General Fund to account for all financial transactions not properly accounted for in another fund;

(2) Special Revenue Funds to account for the proceeds of specific revenue sources (other than special assessments) or to finance specified activities as required by law or administrative regulation;

(3) Debt Service Funds to account for the payment of interest and principal on long-term debt other than special assessment and revenue bonds;

(4) Capital Projects Funds to account for the receipt and disbursement of moneys used for the acquisition of capital facilities other than those financed by special assessment and enterprise funds;

(5) Enterprise Funds to account for the financing of services to the general public where all or most of the costs involved are paid in the form of charges by users of such services;

(6) Trust and Agency Funds to account for assets held by a governmental unit as trustee or agent for individuals, private organizations, and other governmental units;

(7) Intragovernmental Service Funds to account for the financing of special activities and services performed by a designated organization unit within a governmental jurisdiction for other organization units within the same governmental jurisdiction;

(8) Special Assessment Funds to account for special assessments levied to finance public improvements or services deemed to benefit the properties against which the assessments are levied.

Number of funds

6. Every governmental unit should establish and maintain those funds required by law and sound financial administration. Since numerous funds make for inflexibility, undue complexity, and unnecessary expense in both the accounting system and the over-all financial administration, however, only the minimum number of funds consistent with legal and operating requirements should be established.

Fund accounts

7. A complete self-balancing group of accounts should be established and maintained for each fund. This group should include all general ledger accounts and subsidiary records necessary to reflect compliance with legal provisions and to set forth the financial position and the results of financial operations of the fund. A clear distinction should be made between the accounts relating to current assets and liabilities and those relating to fixed assets and liabilities. With the exception of Intragovernmental Service Funds, Enterprise Funds, and certain Trust Funds, fixed

assets should not be accounted for in the same fund with the current assets, but should be set up in a separate, self-balancing group of accounts called the General Fixed Asset Group of Accounts. Similarly, except in Special Assessment, Enterprise, and certain Trust Funds, long-term liabilities should not be carried with the current liabilities of any fund, but should be set up in a separate, self-balancing group of accounts known as the General Long-term Debt Group of Accounts.

Valuation of fixed assets

8. The fixed asset accounts should be maintained on the basis of original cost, or the estimated cost if the original cost is not available, or, in the case of gifts, the appraised value at the time received.

Depreciation

9. Depreciation on general fixed assets should not be recorded in the general accounting records. Depreciation charges on such assets may be computed for unit cost purposes, provided such charges are recorded only in memorandum form and do not appear in the fund accounts.

Basis of accounting

10. The accrual basis of accounting is recommended for Enterprise, Trust, Capital Projects, Special Assessment, and Intragovernmental Service Funds. For the General, Special Revenue, and Debt Service Funds, the modified accrual basis of accounting is recommended. The modified accrual basis of accounting is defined as that method of accounting in which expenditures other than accrued interest on general long-term debt are recorded at the time liabilities are incurred and revenues are recorded when received in cash, except for material or available revenues which should be accrued to reflect properly the taxes levied and the revenues earned.

Classification of accounts

11. Governmental revenues should be classified by fund and source. Expenditures should be classified by fund, function, organization unit, activity, character, and principal classes of objects in accordance with standard recognized classification.

Common terminology and classification

12. A common terminology and classification should be used consistently throughout the budget, the accounts, and the financial reports.

Financial reporting

13. Financial statements and reports showing the current condition of budgetary and proprietary accounts should be prepared periodically to control financial operations. At the close of each fiscal year, a comprehensive annual financial report covering all funds and financial operations of the governmental unit should be prepared and published.

Appendix 3

Mathematical Tables

A. PRESENT WORTH OF 1 (AT COMPOUND INTEREST)

$$\frac{1}{(1+i)^n}$$

Periods	$\frac{1}{4}\%$	$\frac{1}{2}\%$	$\frac{3}{4}\%$	1%	$1\frac{1}{4}\%$	$1\frac{1}{2}\%$
1....	0.9975 0623	0.9950 2488	0.9925 5583	0.9900 9901	0.9876 5432	0.9852 2167
2.....	0.9950 1869	0.9900 7450	0.9851 6708	0.9802 9605	0.9754 6106	0.9706 6175
3.....	0.9925 3734	0.9851 4876	0.9778 3333	0.9705 9015	0.9634 1833	0.9563 1699
4.....	0.9900 6219	0.9802 4752	0.9705 5417	0.9609 8034	0.9515 2428	0.9421 8423
5.....	0.9875 9321	0.9753 7067	0.9633 2920	0.9514 6569	0.9397 7706	0.9282 6033
6.....	0.9851 3038	0.9705 1808	0.9561 5802	0.9420 4524	0.9281 7488	0.9145 4219
7.....	0.9826 7370	0.9656 8963	0.9490 4022	0.9327 1805	0.9167 1593	0.9010 2679
8.....	0.9802 2314	0.9608 8520	0.9419 7540	0.9234 8322	0.9053 9845	0.8877 1112
9.....	0.9777 7869	0.9561 0468	0.9349 6318	0.9143 3982	0.8942 2069	0.8745 9224
10.....	0.9753 4034	0.9513 4794	0.9280 0315	0.9052 8695	0.8831 8093	0.8616 6723
11.....	0.9729 0807	0.9466 1489	0.9210 9494	0.8963 2372	0.8722 7746	0.8489 3323
12.....	0.9704 8187	0.9419 0534	0.9142 3815	0.8874 4923	0.8615 0860	0.8363 8742
13.....	0.9680 6171	0.9372 1924	0.9074 3241	0.8786 6260	0.8508 7269	0.8240 2702
14.....	0.9656 4759	0.9325 5646	0.9006 7733	0.8699 6297	0.8403 6809	0.8118 4928
15.....	0.9632 3949	0.9279 1688	0.8939 7254	0.8613 4947	0.8299 9318	0.7998 5150
16.....	0.9608 3740	0.9233 0037	0.8873 1766	0.8528 2126	0.8197 4635	0.7880 3104
17.....	0.9584 4130	0.9187 0684	0.8807 1231	0.8443 7749	0.8096 2602	0.7763 8526
18.....	0.9560 5117	0.9141 3616	0.8741 5614	0.8360 1731	0.7996 3064	0.7649 1159
19.....	0.9536 6700	0.9095 8822	0.8676 4878	0.8277 3992	0.7897 5866	0.7536 0747
20.....	0.9512 8878	0.9050 6290	0.8611 8985	0.8195 4447	0.7800 0855	0.7424 7042
21.....	0.9489 1649	0.9005 6010	0.8547 7901	0.8114 3017	0.7703 7881	0.7314 9795
22.....	0.9465 5011	0.8960 7971	0.8484 1589	0.8033 9621	0.7608 6796	0.7206 8763
23.....	0.9441 8964	0.8916 2160	0.8421 0014	0.7954 4179	0.7514 7453	0.7100 3708
24.....	0.9418 3505	0.8871 8567	0.8358 3140	0.7875 6613	0.7421 9707	0.6995 4392
25.....	0.9394 8634	0.8827 7181	0.8296 0933	0.7797 6844	0.7330 3414	0.6892 0583
26.....	0.9371 4348	0.8783 7991	0.8234 3358	0.7720 4796	0.7239 8434	0.6790 2052
27.....	0.9348 0646	0.8740 0986	0.8173 0380	0.7644 0392	0.7150 4626	0.6689 8574
28.....	0.9324 7527	0.8696 6155	0.8112 1966	0.7568 3557	0.7062 1853	0.6590 9925
29.....	0.9301 4990	0.8653 3488	0.8051 8080	0.7493 4215	0.6974 9978	0.6493 5887
30.....	0.9278 3032	0.8610 2973	0.7991 8690	0.7419 2292	0.6888 8867	0.6397 6243
31.....	0.9255 1653	0.8567 4600	0.7932 3762	0.7345 7715	0.6803 8387	0.6303 0781
32.....	0.9232 0851	0.8524 8358	0.7873 3262	0.7273 0411	0.6719 8407	0.6209 9292
33.....	0.9209 0624	0.8482 4237	0.7814 7158	0.7201 0307	0.6636 8797	0.6118 1568
34.....	0.9186 0972	0.8440 2226	0.7756 5418	0.7129 7334	0.6554 9429	0.6027 7407
35.....	0.9163 1892	0.8398 2314	0.7698 8008	0.7059 1420	0.6474 0177	0.5938 6608
36.....	0.9140 3384	0.8356 4492	0.7641 4896	0.6989 2495	0.6394 0916	0.5850 8974
37.....	0.9117 5445	0.8314 8748	0.7584 6051	0.6920 0490	0.6315 1522	0.5764 4309
38.....	0.9094 8075	0.8273 5073	0.7528 1440	0.6851 5337	0.6237 1873	0.5679 2423
39.....	0.9072 1272	0.8232 3455	0.7472 1032	0.6783 6967	0.6160 1850	0.5595 3126
40.....	0.9049 5034	0.8191 3886	0.7416 4796	0.6716 5314	0.6084 1334	0.5512 6232

A. PRESENT WORTH OF 1 (AT COMPOUND INTEREST) (*Continued*)

$$\frac{1}{(1+i)^n}$$

Periods	2%	2½%	3%	4%	5%	6%
1.....	0.9803 9216	0.9756 0976	0.9708 7379	0.9615 3846	0.9523 8095	0.9433 9623
2.....	0.9611 6878	0.9518 1440	0.9425 9591	0.9245 5621	0.9070 2948	0.8899 9644
3.....	0.9423 2233	0.9285 9941	0.9151 4166	0.8889 9636	0.8638 3760	0.8396 1928
4.....	0.9238 4543	0.9059 5064	0.8884 8705	0.8548 0419	0.8227 0247	0.7920 9366
5.....	0.9057 3081	0.8838 5429	0.8626 0878	0.8219 2711	0.7835 2617	0.7472 5817
6.....	0.8879 7138	0.8622 9687	0.8374 8426	0.7903 1453	0.7462 1540	0.7049 6054
7.....	0.8705 6018	0.8412 6524	0.8130 9151	0.7599 1781	0.7106 8133	0.6650 5711
8.....	0.8534 9037	0.8207 4657	0.7894 0923	0.7306 9021	0.6768 3936	0.6274 1237
9.....	0.8367 5527	0.8007 2836	0.7664 1673	0.7025 8674	0.6446 0892	0.5918 9846
10.....	0.8203 4830	0.7811 9840	0.7440 9391	0.6755 6417	0.6139 1325	0.5583 9478
11.....	0.8042 6304	0.7621 4478	0.7224 2128	0.6495 8093	0.5846 7929	0.5267 8753
12.....	0.7884 9318	0.7435 5589	0.7013 7988	0.6245 9705	0.5568 3742	0.4969 6936
13.....	0.7730 3253	0.7254 2038	0.6809 5134	0.6005 7409	0.5303 2135	0.4688 3902
14.....	0.7578 7502	0.7077 2720	0.6611 1781	0.5774 7508	0.5050 6795	0.4423 0096
15.....	0.7430 1473	0.6904 6556	0.6418 6195	0.5552 6450	0.4810 1710	0.4172 6506
16.....	0.7284 4581	0.6736 2493	0.6231 6694	0.5339 0818	0.4581 1152	0.3936 4628
17.....	0.7141 6256	0.6571 9506	0.6050 1645	0.5133 7325	0.4362 9669	0.3713 6442
18.....	0.7001 5937	0.6411 6591	0.5873 9461	0.4936 2812	0.4155 2065	0.3503 4379
19.....	0.6864 3076	0.6255 2772	0.5702 8603	0.4746 4242	0.3957 3396	0.3305 1301
20.....	0.6729 7133	0.6102 7094	0.5536 7575	0.4563 8695	0.3768 8948	0.3118 0473
21.....	0.6597 7582	0.5953 8629	0.5375 4928	0.4388 3360	0.3589 4236	0.2941 5540
22.....	0.6468 3904	0.5808 6467	0.5218 9250	0.4219 5539	0.3418 4987	0.2775 0510
23.....	0.6341 5592	0.5666 9724	0.5066 9175	0.4057 2633	0.3255 7131	0.2617 9726
24.....	0.6217 2149	0.5528 7535	0.4919 3374	0.3901 2147	0.3100 6791	0.2469 7855
25.....	0.6095 3087	0.5393 9059	0.4776 0557	0.3751 1680	0.2953 0277	0.2329 9863
26.....	0.5975 7928	0.5262 3472	0.4636 9473	0.3606 8923	0.2812 4073	0.2198 1003
27.....	0.5858 6204	0.5133 9973	0.4501 8906	0.3468 1657	0.2678 4832	0.2073 6795
28.....	0.5743 7455	0.5008 7778	0.4370 7675	0.3334 7747	0.2550 9364	0.1956 3014
29.....	0.5631 1231	0.4886 6125	0.4243 4636	0.3206 5141	0.2429 4632	0.1845 5674
30.....	0.5520 7089	0.4767 4269	0.4119 8676	0.3083 1867	0.2313 7745	0.1741 1013
31.....	0.5412 4597	0.4651 1481	0.3999 8715	0.2964 6026	0.2203 5947	0.1642 5484
32.....	0.5306 3330	0.4537 7055	0.3883 3703	0.2850 5794	0.2098 6617	0.1549 5740
33.....	0.5202 2873	0.4427 0298	0.3770 2625	0.2740 9417	0.1998 7254	0.1461 8622
34.....	0.5100 2817	0.4319 0534	0.3660 4490	0.2635 5209	0.1903 5480	0.1379 1153
35.....	0.5000 2761	0.4213 7107	0.3553 8340	0.2534 1547	0.1812 9029	0.1301 0522
36.....	0.4902 2315	0.4110 9372	0.3450 3243	0.2436 6872	0.1726 5741	0.1227 4077
37.....	0.4806 1093	0.4010 6705	0.3349 8294	0.2342 9685	0.1644 3563	0.1157 9318
38.....	0.4711 8719	0.3912 8492	0.3252 2615	0.2252 8543	0.1566 0536	0.1092 3885
39.....	0.4619 4822	0.3817 4139	0.3157 5355	0.2166 2061	0.1491 4797	0.1030 5552
40.....	0.4528 9042	0.3724 3062	0.3065 5684	0.2082 8904	0.1420 4568	0.0972 2219

B. PRESENT WORTH OF AN ANNUITY (IF RENT IS 1)

$$\frac{1 - \dfrac{1}{(1+i)^n}}{i}$$

Periods	$\frac{1}{4}\%$	$\frac{1}{2}\%$	$\frac{3}{4}\%$	1%	$1\frac{1}{4}\%$	$1\frac{1}{2}\%$
1.....	0.997 5062	0.995 0249	0.992 5558	0.990 0990	0.987 6543	0.985 2217
2.....	1.992 5249	1.985 0994	1.977 7229	1.970 3951	1.963 1154	1.955 8834
3.....	2.985 0623	2.970 2481	2.955 5562	2.940 9852	2.926 5337	2.912 2004
4.....	3.975 1245	3.950 4957	3.926 1104	3.901 9656	3.878 0580	3.854 3847
5.....	4.962 7177	4.925 8663	4.889 4396	4.853 4312	4.817 8350	4.782 6450
6.....	5.947 8480	5.896 3844	5.845 5976	5.795 4765	5.746 0099	5.697 1872
7.....	6.930 5217	6.862 0740	6.794 6379	6.728 1945	6.662 7258	6.598 2140
8.....	7.910 7449	7.822 9592	7.736 6133	7.651 6778	7.568 1243	7.485 9251
9.....	8.888 5236	8.779 0639	8.671 5764	8.566 0176	8.462 3450	8.360 5173
10.....	9.863 8639	9.730 4119	9.599 5796	9.471 3045	9.345 5259	9.222 1846
11.....	10.836 7720	10.677 0267	10.520 6745	10.367 6282	10.217 8034	10.071 1178
12.....	11.807 2538	11.618 9321	11.434 9127	11.255 0775	11.079 3120	10.907 5052
13.....	12.775 3156	12.556 1513	12.342 3451	12.133 7401	11.930 1847	11.731 5322
14.....	13.740 9631	13.488 7078	13.243 0224	13.003 7030	12.770 5528	12.543 3815
15.....	14.704 2026	14.416 6246	14.136 9950	13.865 0525	13.600 5459	13.343 2330
16.....	15.665 0400	15.339 9250	15.024 3126	14.717 8738	14.420 2923	14.131 2641
17.....	16.623 4813	16.258 6319	15.905 0249	15.562 2513	15.229 9183	14.907 6493
18.....	17.579 5325	17.172 7680	16.779 1811	16.398 2686	16.029 5489	15.672 5609
19.....	18.533 1995	18.082 3562	17.646 8298	17.226 0085	16.819 3076	16.426 1684
20.....	19.484 4883	18.987 4192	18.508 0197	18.045 5530	17.599 3161	17.168 6388
21.....	20.433 4048	19.887 9792	19.362 7987	18.856 9831	18.369 6950	17.900 1367
22.....	21.379 9549	20.784 0590	20.211 2146	19.660 3793	19.130 5629	18.620 8244
23.....	22.324 1445	21.675 6806	21.053 3147	20.455 8211	19.882 0374	19.330 8615
24.....	23.265 9796	22.562 8662	21.889 1461	21.243 3873	20.624 2345	20.030 4054
25.....	24.205 4659	23.445 6380	22.718 7555	22.023 1557	21.357 2686	20.719 6112
26.....	25.142 6094	24.324 0179	23.542 1891	22.795 2037	22.081 2530	21.398 6317
27.....	26.077 4159	25.198 0278	24.359 4929	23.559 6076	22.796 2992	22.067 6175
28.....	27.009 8911	26.067 6894	25.170 7125	24.316 4432	23.502 5178	22.726 7167
29.....	27.940 0410	26.933 0242	25.975 8933	25.065 7853	24.200 0176	23.376 0756
30.....	28.867 8713	27.794 0540	26.775 0802	25.807 7082	24.888 9062	24.015 8380
31.....	29.793 3879	28.650 8000	27.568 3178	26.542 2854	25.569 2901	24.646 1458
32.....	30.716 5964	29.503 2836	28.355 6505	27.269 5895	26.241 2742	25.267 1387
33.....	31.637 5026	30.351 5259	29.137 1220	27.989 6926	26.904 9622	25.878 9544
34.....	32.556 1123	31.195 5482	29.912 7762	28.702 6659	27.560 4564	26.481 7285
35.....	33.472 4313	32.035 3713	30.682 6563	29.408 5801	28.207 8582	27.075 5946
36.....	34.386 4651	32.871 0162	31.446 8053	30.107 5050	28.847 2674	27.660 6843
37.....	35.298 2196	33.702 5037	32.205 2658	30.799 5099	29.478 7826	28.237 1274
38.....	36.207 7003	34.529 8544	32.958 0802	31.484 6633	30.102 5013	28.805 0516
39.....	37.114 9130	35.353 0890	33.705 2905	32.163 0330	30.718 5198	29.364 5829
40.....	38.019 8634	36.172 2279	34.446 9384	32.834 6861	31.326 9332	29.915 8452

B. PRESENT WORTH OF AN ANNUITY (IF RENT IS 1) (*Continued*)

$$\frac{1 - \dfrac{1}{(1+i)^n}}{i}$$

Periods	2%	2½%	3%	4%	5%	6%
1.....	0.980 3922	0.975 6098	0.970 8738	0.961 5385	0.952 3810	0.943 3962
2.....	1.941 5609	1.927 4242	1.913 4697	1.886 0947	1.859 4104	1.833 3927
3.....	2.883 8833	2.856 0236	2.828 6114	2.775 0910	2.723 2480	2.673 0120
4.....	3.807 7287	3.761 9742	3.717 0984	3.629 8952	3.545 9505	3.465 1056
5.....	4.713 4595	4.645 8285	4.579 7072	4.451 8223	4.329 4767	4.212 3638
6.....	5.601 4309	5.508 1254	5.417 1914	5.242 1369	5.075 6923	4.917 3243
7.....	6.471 9911	6.349 3906	6.230 2830	6.002 0547	5.786 3731	5.582 3814
8.....	7.325 4814	7.170 1372	7.019 6922	6.732 7449	6.463 2128	6.209 7938
9.....	8.162 2367	7.970 8655	7.786 1089	7.435 3316	7.107 8217	6.801 6923
10.....	8.982 5850	8.752 0639	8.530 2028	8.110 8958	7.721 7349	7.360 0871
11.....	9.786 8481	9.514 2087	9.252 6241	8.760 4767	8.306 4142	7.886 8746
12.....	10.575 3412	10.257 7646	9.954 0040	9.385 0738	8.863 2516	8.383 8439
13.....	11.348 3738	10.983 1850	10.634 9553	9.985 6479	9.393 5730	8.852 6830
14.....	12.106 2488	11.690 0122	11.296 0731	10.563 1229	9.898 6409	9.294 9839
15.....	12.849 2635	12.381 3777	11.937 9351	11.118 3874	10.379 6580	9.712 2490
16.....	13.577 7093	13.055 0027	12.561 1020	11.652 2956	10.837 7696	10.105 8953
17.....	14.291 8719	13.712 1977	13.166 1185	12.165 6689	11.274 0663	10.477 2597
18.....	14.992 0313	14.353 3636	13.753 5131	12.659 2970	11.689 5869	10.827 6035
19.....	15.678 4620	14.978 8913	14.323 7991	13.133 9394	12.085 3209	11.158 1165
20.....	16.351 4333	15.589 1623	14.877 4749	13.590 3263	12.462 2103	11.469 9212
21.....	17.011 2092	16.184 5486	15.415 0241	14.029 1600	12.821 1527	11.764 0766
22.....	17.658 0482	16.765 4132	15.936 9166	14.451 1153	13.163 0026	12.041 5817
23.....	18.292 2041	17.332 1105	16.443 6084	14.856 8417	13.488 5739	12.303 3790
24.....	18.913 9256	17.884 9858	16.935 5421	15.246 9631	13.798 6418	12.550 3575
25.....	19.523 4565	18.424 3764	17.413 1477	15.622 0799	14.093 9446	12.783 3562
26.....	20.121 0358	18.950 6111	17.876 8424	15.982 7692	14.375 1853	13.003 1662
27.....	20.706 8978	19.464 0109	18.327 0315	16.329 5858	14.643 0336	13.210 5341
28.....	21.281 2724	19.964 8887	18.764 1082	16.663 0632	14.898 1273	13.406 1643
29.....	21.844 3847	20.453 5499	19.188 4546	16.983 7146	15.141 0736	13.590 7210
30.....	22.396 4556	20.930 2926	19.600 4414	17.292 0333	15.372 4510	13.764 8312
31.....	22.937 7015	21.395 4074	20.000 4285	17.588 4936	15.592 8105	13.929 0860
32.....	23.468 3348	21.849 1780	20.388 7655	17.873 5515	15.802 6767	14.084 0434
3	23.988 5636	22.291 8809	20.765 7918	18.147 6457	16.002 5492	14.230 2296
....	24.498 5917	22.723 7863	21.131 8367	18.411 1978	16.192 9040	14.368 1411
....	24.998 6193	23.145 1573	21.487 2201	18.664 6132	16.374 1943	14.498 2464
36.....	25.488 8425	23.556 2511	21.832 2525	18.908 2820	16.546 8517	14.620 9871
37.....	25.969 4534	23.957 3181	22.167 2354	19.142 5788	16.711 2873	14.736 7803
38.....	26.440 6406	24.348 6030	22.492 4616	19.367 8642	16.867 8927	14.846 0192
39.....	26.902 5888	24.730 3444	22.808 2151	19.584 4848	17.017 0407	14.949 0747
40.....	27.355 4792	25.102 7751	23.114 7720	19.792 7739	17.159 0864	15.046 2969

C. AMOUNT OF 1 (AT COMPOUND INTEREST)

$(1+i)^n$

Periods	$\frac{1}{4}\%$	$\frac{1}{2}\%$	$\frac{3}{4}\%$	1%	$1\frac{1}{4}\%$	$1\frac{1}{2}\%$
1	1.0025 0000	1.0050 0000	1.0075	1.01	1.0125	1.015
2	1.0050 0625	1.0100 2500	1.0150 5625	1.0201	1.0251 5625	1.0302 25
3	1.0075 1877	1.0150 7513	1.0226 6917	1.0303 01	1.0379 7070	1.0456 7838
4	1.0100 3756	1.0201 5050	1.0303 3919	1.0406 0401	1.0509 4534	1.0613 6355
5	1.0125 6266	1.0252 5125	1.0380 6673	1.0510 1005	1.0640 8215	1.0772 8400
6	1.0150 9406	1.0303 7751	1.0458 5224	1.0615 2015	1.0773 8318	1.0934 4326
7	1.0176 3180	1.0355 2940	1.0536 9613	1.0721 3535	1.0908 5047	1.1098 4491
8	1.0201 7588	1.0407 0704	1.0615 9885	1.0828 5671	1.1044 8610	1.1264 9259
9	1.0227 2632	1.0459 1058	1.0695 6084	1.0936 8527	1.1182 9218	1.1433 8998
10	1.0252 8313	1.0511 4013	1.0775 8255	1.1046 2213	1.1322 7083	1.1605 4083
11	1.0278 4634	1.0563 9583	1.0856 6441	1.1156 6835	1.1464 2422	1.1779 4894
12	1.0304 1596	1.0616 7781	1.0938 0690	1.1268 2503	1.1607 5452	1.1956 1817
13	1.0329 9200	1.0669 8620	1.1020 1045	1.1380 9328	1.1752 6395	1.2135 5244
14	1.0355 7448	1.0723 2113	1.1102 7553	1.1494 7421	1.1899 5475	1.2317 5573
15	1.0381 6341	1.0776 8274	1.1186 0259	1.1609 6896	1.2048 2918	1.2502 3207
16	1.0407 5882	1.0830 7115	1.1269 9211	1.1725 7864	1.2198 8955	1.2689 8555
17	1.0433 6072	1.0884 8651	1.1354 4455	1.1843 0443	1.2351 3817	1.2880 2033
18	1.0459 6912	1.0939 2894	1.1439 6039	1.1961 4748	1.2505 7739	1.3073 4064
19	1.0485 8404	1.0993 9858	1.1525 4009	1.2081 0895	1.2662 0961	1.3269 5075
20	1.0512 0550	1.1048 9558	1.1611 8414	1.2201 9004	1.2820 3723	1.3468 5501
21	1.0538 3352	1.1104 2006	1.1698 9302	1.2323 9194	1.2980 6270	1.3670 5783
22	1.0564 6810	1.1159 7216	1.1786 6722	1.2447 1586	1.3142 8848	1.3875 6370
23	1.0591 0927	1.1215 5202	1.1875 0723	1.2571 6302	1.3307 1709	1.4083 7715
24	1.0617 5704	1.1271 5978	1.1964 1353	1.2697 3465	1.3473 5105	1.4295 0281
25	1.0644 1144	1.1327 9558	1.2053 8663	1.2824 3200	1.3641 9294	1.4509 4535
26	1.0670 7247	1.1384 5955	1.2144 2703	1.2952 5631	1.3812 4535	1.4727 0953
27	1.0697 4015	1.1441 5185	1.2235 3523	1.3082 0888	1.3985 1092	1.4948 0018
28	1.0724 1450	1.1498 7261	1.2327 1175	1.3212 9097	1.4159 9230	1.5172 2218
29	1.0750 9553	1.1556 2197	1.2419 5709	1.3345 0388	1.4336 9221	1.5399 8051
30	1.0777 8327	1.1614 0008	1.2512 7176	1.3478 4892	1.4516 1336	1.5630 8022
31	1.0804 7773	1.1672 0708	1.2606 5630	1.3613 2740	1.4697 5853	1.5865 2642
32	1.0831 7892	1.1730 4312	1.2701 1122	1.3749 4068	1.4881 3051	1.6103 2432
33	1.0858 8687	1.1789 0833	1.2796 3706	1.3886 9009	1.5067 3214	1.6344 7918
34	1.0886 0159	1.1848 0288	1.2892 3434	1.4025 7699	1.5255 6629	1.6589 9637
35	1.0913 2309	1.1907 2689	1.2989 0359	1.4166 0276	1.5446 3587	1.6838 8132
36	1.0940 5140	1.1966 8052	1.3086 4537	1.4307 6878	1.5639 4382	1.7091 3954
37	1.0967 8653	1.2026 6393	1.3184 6021	1.4450 7647	1.5834 9312	1.7347 7663
38	1.0995 2850	1.2086 7725	1.3283 4866	1.4595 2724	1.6032 8678	1.7607 9828
39	1.1022 7732	1.2147 2063	1.3383 1128	1.4741 2251	1.6233 2787	1.7872 1025
40	1.1050 3301	1.2207 9424	1.3483 4861	1.4888 6373	1.6436 1946	1.8140 1841

C. AMOUNT OF 1 (AT COMPOUND INTEREST) (*Continued*)

$(1 + i)^n$

Periods	2%	$2\frac{1}{2}$%	3%	4%	5%	6%
1.	1.02	1.025	1.03	1.04	1.05	1.06
2.	1.0404	1.0506 25	1.0609	1.0816	1.1025	1.1236
3.	1.0612 08	1.0768 9063	1.0927 27	1.1248 64	1.1576 25	1.1910 16
4.	1.0824 3216	1.1038 1289	1.1255 0881	1.1698 5856	1.2155 0625	1.2624 7696
5.	1.1040 8080	1.1314 0821	1.1592 7407	1.2166 5290	1.2762 8156	1.3382 2558
6.	1.1261 6242	1.1596 9342	1.1940 5230	1.2653 1902	1.3400 9564	1.4185 1911
7.	1.1486 8567	1.1886 8575	1.2298 7387	1.3159 3178	1.4071 0042	1.5036 3026
8.	1.1716 5938	1.2184 0290	1.2667 7008	1.3685 6905	1.4774 5544	1.5938 4807
9.	1.1950 9257	1.2488 6297	1.3047 7318	1.4233 1181	1.5513 2822	1.6894 7896
10.	1.2189 9442	1.2800 8454	1.3439 1638	1.4802 4428	1.6288 9463	1.7908 4770
11.	1.2433 7431	1.3120 8666	1.3842 3387	1.5394 5406	1.7103 3936	1.8982 9856
12.	1.2682 4179	1.3448 8882	1.4257 6089	1.6010 3222	1.7958 5633	2.0121 9647
13.	1.2936 0663	1.3785 1104	1.4685 3371	1.6650 7351	1.8856 4914	2.1329 2826
14.	1.3194 7876	1.4129 7382	1.5125 8972	1.7316 7645	1.9799 3160	2.2609 0396
15.	1.3458 6834	1.4482 9817	1.5579 6742	1.8009 4351	2.0789 2818	2.3965 5819
16.	1.3727 8571	1.4845 0562	1.6047 0644	1.8729 8125	2.1828 7459	2.5403 5168
17.	1.4002 4142	1.5216 1826	1.6528 4763	1.9479 0050	2.2920 1832	2.6927 7279
18.	1.4282 4625	1.5596 5872	1.7024 3306	2.0258 1652	2.4066 1923	2.8543 3915
19.	1.4568 1117	1.5986 5019	1.7535 0605	2.1068 4918	2.5269 5020	3.0255 9950
20.	1.4859 4740	1.6386 1644	1.8061 1123	2.1911 2314	2.6532 9771	3.2071 3547
21.	1.5156 6634	1.6795 8185	1.8602 9457	2.2787 6807	2.7859 6259	3.3995 6360
22.	1.5459 7967	1.7215 7140	1.9161 0341	2.3699 1879	2.9252 6072	3.6035 3742
23.	1.5768 9926	1.7646 1068	1.9735 8651	2.4647 1554	3.0715 2376	3.8197 4966
24.	1.6084 3725	1.8087 2595	2.0327 9411	2.5633 0416	3.2250 9994	4.0489 3464
25.	1.6406 0599	1.8539 4410	2.0937 7793	2.6658 3633	3.3863 5494	4.2918 7072
26.	1.6734 1811	1.9002 9270	2.1565 9127	2.7724 6978	3.5556 7269	4.5493 8296
27.	1.7068 8648	1.9478 0002	2.2212 8901	2.8833 6858	3.7334 5632	4.8223 4594
28.	1.7410 2421	1.9964 9502	2.2879 2768	2.9987 0332	3.9201 2914	5.1116 8670
29.	1.7758 4469	2.0464 0739	2.3565 6551	3.1186 5145	4.1161 3560	5.4183 8790
30.	1.8113 6158	2.0975 6758	2.4272 6247	3.2433 9751	4.3219 4238	5.7434 9117
31.	1.8475 8882	2.1500 0677	2.5000 8035	3.3731 3341	4.5380 3949	6.0881 0064
32.	1.8845 4059	2.2037 5694	2.5750 8276	3.5080 5875	4.7649 4147	6.4533 8668
33.	1.9222 3140	2.2588 5086	2.6523 3524	3.6483 8110	5.0031 8854	6.8405 8988
34	1.9606 7603	2.3153 2213	2.7319 0530	3.7943 1634	5.2533 4797	7.2510 2528
35.	1.9998 8955	2.3732 0519	2.8138 6245	3.9460 8899	5.5160 1537	7.6860 8679
36.	2.0398 8734	2.4325 3532	2.8982 7833	4.1039 3255	5.7918 1614	8.1472 5200
37 .	2.0806 8509	2.4933 4870	2.9852 2668	4.2680 8986	6.0814 0694	8.6360 8712
38 . .	2.1222 9879	2.5556 8242	3.0747 8348	4.4388 1345	6.3854 7729	9.1542 5235
39	2.1647 4477	2.6195 7448	3.1670 2698	4.6163 6599	6.7047 5115	9.7035 0749
40. .	2.2080 3966	2.6850 6384	3.2620 3779	4.8010 2063	7.0399 8871	10.2857 1794

D. AMOUNT OF AN ANNUITY (IF RENT IS 1)

$$\frac{(1 + i)^n - 1}{i}$$

Periods	¼%	½%	¾%	1%	1¼%	1½%
1.....	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000
2.....	2.002 5000	2.005 0000	2.007 5000	2.010 0000	2.012 5000	2.015 0000
3.....	3.007 5063	3.015 0250	3.022 5563	3.030 1000	3.037 6562	3.045 2250
4.....	4.015 0250	4.030 1001	4.045 2254	4.060 4010	4.075 6270	4.090 9034
5.....	5.025 0626	5.050 2506	5.075 5646	5.101 0050	5.126 5723	5.152 2669
6.....	6.037 6252	6.075 5019	6.113 6314	6.152 0151	6.190 6544	6.229 5509
7.....	7.052 7193	7.105 8794	7.159 4836	7.213 5352	7.268 0376	7.322 9942
8.....	8.070 3511	8.141 4088	8.213 1797	8.285 6706	8.358 8881	8.432 8391
9.....	9.090 5270	9.182 1158	9.274 7786	9.368 5273	9.463 3742	9.559 3317
10.....	10.113 2533	10.228 0264	10.344 3394	10.462 2125	10.581 6664	10.702 7217
11.....	11.138 5364	11.279 1665	11.421 9219	11.566 8347	11.713 9372	11.863 2625
12.....	12.166 3828	12.335 5624	12.507 5864	12.682 5030	12.860 3614	13.041 2114
13.....	13.196 7987	13.397 2402	13.601 3933	13.809 3280	14.021 1159	14.236 8296
14.....	14.229 7907	14.464 2264	14.703 4037	14.947 4213	15.196 3799	15.450 3821
15.....	15.265 3652	15.536 5475	15.813 6792	16.096 8955	16.386 3346	16.682 1378
16.....	16.303 5286	16.614 2303	16.932 2818	17.257 8645	17.591 1638	17.932 3693
17.....	17.344 2874	17.697 3014	18.059 2739	18.430 4431	18.811 0534	19.201 3554
18.....	18.387 6482	18.785 7879	19.194 7185	19.614 7476	20.046 1915	20.489 3757
19.....	19.433 6173	19.879 7168	20.338 6789	20.810 8950	21.296 7689	21.796 7164
20.....	20.482 2013	20.979 1154	21.491 2190	22.019 0040	22.562 9785	23.123 6671
21.....	21.533 4068	22.084 0110	22.652 4031	23.239 1940	23.845 0158	24.470 5221
22.....	22.587 2403	23.194 4311	23.822 2961	24.471 5860	25.143 0785	25.837 5799
23.....	23.643 7084	24.310 4032	25.000 9634	25.716 3018	26.457 3670	27.225 1436
24.....	24.702 8177	25.431 9552	26.188 4706	26.973 4648	27.788 0840	28.633 5208
25.....	25.764 5748	26.559 1150	27.384 8841	28.243 1995	29.135 4351	30.063 0236
26.....	26.828 9862	27.691 9106	28.590 2708	29.525 6315	30.499 6280	31.513 9690
27.....	27.896 0587	28.830 3702	29.804 6978	30.820 8878	31.880 8734	32.986 6785
28.....	28.965 7988	29.974 5220	31.028 2330	32.129 0967	33.279 3843	34.481 4787
29.....	30.038 2133	31.124 3946	32.260 9448	33.450 3877	34.695 3766	35.998 7009
30.....	31.113 3088	32.280 0166	33.502 9018	34.784 8915	36.129 0688	37.538 6814
31.....	32.191 0921	33.441 4167	34.754 1736	36.132 7404	37.580 6822	39.101 7616
32.....	33.271 5698	34.608 6238	36.014 8299	37.494 0678	39.050 4407	40.688 2880
33.....	34.354 7488	35.781 6669	37.284 9411	38.869 0085	40.538 5712	42.298 6123
34.....	35.440 6356	36.960 5752	38.564 5782	40.257 6986	42.045 3033	43.933 0915
35.....	36.529 2372	38.145 3781	39.853 8125	41.660 2756	43.570 8695	45.592 0879
36.....	37.620 5603	39.336 1050	41.152 7161	43.076 8784	45.115 5055	47.275 9692
37.....	38.714 6117	40.532 7855	42.461 3615	44.507 6471	46.679 4493	48.985 1057
38.....	39.811 3982	41.735 4494	43.779 8217	45.952 7236	48.262 9424	50.719 8854
39.....	40.910 9267	42.944 1267	45.108 1704	47.412 2508	49.866 2292	52.480 6837
40.....	42.013 2041	44.158 8473	46.446 4816	48.886 3734	51.489 5571	54.267 8939

D. AMOUNT OF AN ANNUITY (IF RENT IS 1) (*Continued*)

$$\frac{(1+i)^n - 1}{i}$$

Periods	2%	2½%	3%	4%	5%	6%
1.....	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000
2.....	2.020 0000	2.025 0000	2.030 0000	2.040 0000	2.050 0000	2.060 0000
3.....	3.060 4000	3.075 6250	3.090 9000	3.121 6000	3.152 5000	3.183 6000
4.....	4.121 6080	4.152 5156	4.183 6270	4.246 4640	4.310 1250	4.374 6160
5.....	5.204 0402	5.256 3285	5.309 1358	5.416 3226	5.525 6313	5.637 0930
6.....	6.308 1210	6.387 7367	6.468 4099	6.632 9755	6.801 9128	6.975 3185
7.....	7.434 2834	7.547 4302	7.662 4622	7.898 2945	8.142 0085	8.393 8377
8.....	8.582 9691	8.736 1159	8.892 3361	9.214 2263	9.549 1089	9.897 4679
9.....	9.754 6284	9.954 5188	10.159 1061	10.582 7953	11.026 5643	11.491 3160
10.....	10.949 7210	11.203 3818	11.463 8793	12.006 1071	12.577 8925	13.180 7949
11.....	12.168 7154	12.483 4663	12.807 7957	13.486 3514	14.206 7872	14.971 6426
12.....	13.412 0897	13.795 5530	14.192 0296	15.025 8055	15.917 1265	16.869 9412
13.....	14.680 3315	15.140 4418	15.617 7905	16.626 8377	17.712 9829	18.882 1377
14.....	15.973 9382	16.518 9528	17.086 3242	18.291 9112	19.598 6320	21.015 0659
15.....	17.293 4169	17.931 9267	18.598 9139	20.023 5876	21.578 5636	23.275 9699
16.....	18.639 2853	19.380 2248	20.156 8813	21.824 5311	23.657 4918	25.672 5281
17.....	20.012 0710	20.864 7305	21.761 5877	23.697 5124	25.840 3664	28.212 8798
18.....	21.412 3124	22.386 3487	23.414 4354	25.645 4129	28.132 3847	30.905 6526
19.....	22.840 5586	23.946 0074	25.116 8684	27.671 2294	30.539 0039	33.759 9917
20.....	24.297 3698	25.544 6576	26.870 3745	29.778 0786	33.065 9541	36.785 5912
21.....	25.783 3172	27.183 2741	28.676 4857	31.969 2017	35.719 2518	39.992 7267
22.....	27.298 9835	28.862 8559	30.536 7803	34.247 9698	38.505 2144	43.392 2903
23.....	28.844 9632	30.584 4273	32.452 8837	36.617 8886	41.430 4751	46.995 8277
24.....	30.421 8625	32.349 0380	34.426 4702	39.082 6041	44.501 9989	50.815 5774
25.....	32.030 2997	34.157 7639	36.459 2643	41.645 9083	47.727 0988	54.864 5120
26.....	33.670 9057	36.011 7080	38.553 0423	44.311 7446	51.113 4538	59.156 3827
27.....	35.344 3238	37.912 0007	40.709 6335	47.084 2144	54.669 1265	63.705 7657
28.....	37.051 2103	39.859 8008	42.930 9225	49.967 5830	58.402 5828	68.528 1116
29.....	38.792 2345	41.856 2958	45.218 8502	52.966 2863	62.322 7119	73.639 7983
30.....	40.568 0792	43.902 7032	47.575 4157	56.084 9378	66.438 8475	79.058 1862
31.....	42.379 4408	46.000 2707	50.002 6782	59.328 3353	70.760 7899	84.801 6774
32.....	44.227 0296	48.150 2775	52.502 7585	62.701 4687	75.298 8294	90.889 7780
33.....	46.111 5702	50.354 0345	55.077 8413	66.209 5274	80.063 7708	97.343 1647
34.....	48.033 8016	52.612 8853	57.730 1765	69.857 9085	85.066 9594	104.183 7546
35.....	49.994 4776	54.928 2074	60.462 0818	73.652 2249	90.320 3074	111.434 7799
36.....	51.994 3672	57.301 4126	63.275 9443	77.598 3139	95.836 3227	119.120 8667
37.....	54.034 2545	59.733 9479	66.174 2226	81.702 2464	101.628 1389	127.268 1187
38.....	56.114 9396	62.227 2966	69.159 4493	85.970 3363	107.709 5458	135.904 2058
39.....	58.237 2384	64.782 9791	72.234 2328	90.409 1497	114.095 0231	145.058 4581
40.....	60.401 9832	67.402 5535	75.401 2597	95.025 5157	120.799 7742	154.761 9656

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This book has been set in 10 and 9 point Janson, leaded 2 points. Chapter numbers are in 16 point Helvetica italic; chapter titles are in 18 point Helvetica Regular. The size of the type page is 27 picas by 46½ picas.